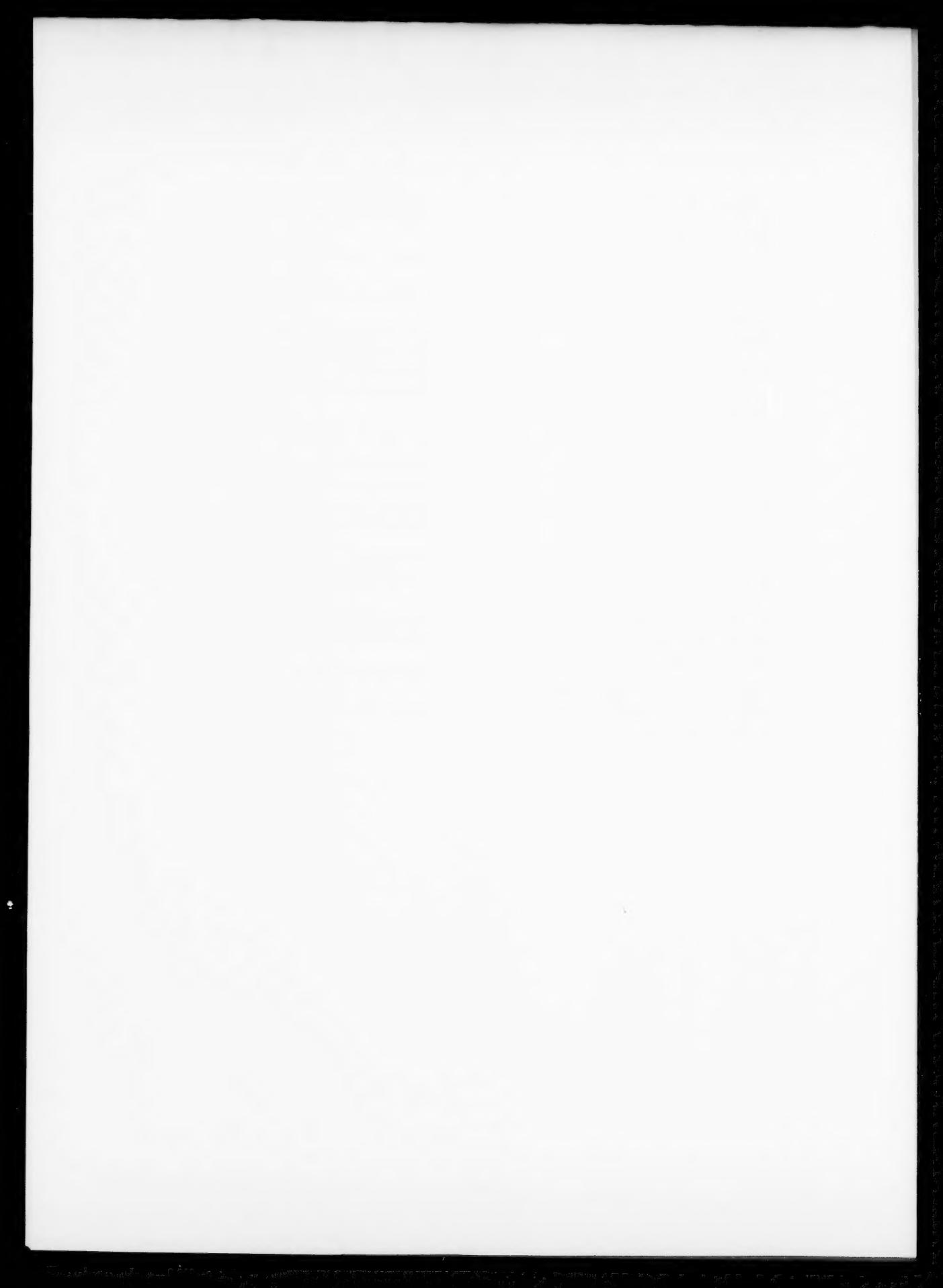

AUTHOR INDEX

- Alonso, A., 1233
Bauman, D.E., 1197
Beck, S.A., 1187
Boris, J., 1191
Bryhn, M., 1177
Calder, P.C., 1147
Caruso, D., 1223
Chapkin, R.S., 1163
Eckert, G.P., 1239
Flachs, P., 1177
Galli, C., 1239
Grande, S., 1239
Hibbeln, J.R., 1207
Jensen, B., 1191
Kopecky, J., 1177
Lands, W.E.M., 1207
Llorach, R., 1239
Lock, A.L., 1197
Martínez-González, M.Á., 1233
McMurray, D.N., 1163
Müller, W.E., 1239
Nieminan, L.R.G., 1207
Ochoa, J.J., 1223
Olsen, S.F., 1191
Prazak, T., 1177
Quiles, J.L., 1223
Richardson, A.J., 1215
Rivera, D., 1239
Rossmeisl, M., 1177
Ruzickova, J., 1177
Salvig, J.D., 1191
Schaffer, S., 1239
Secher, N.J., 1191
Sponarova, J., 1177
Stulnig, T.M., 1171
Switzer, K.C., 1163
Tisdale, M.J., 1187
Tvrzicka, E., 1177
Vecka, M., 1177
Visioli, F., 1239
Wahle, K.W.J., 1223
Zeyda, M., 1171



ANNUAL INDEX

Volume 39 2004

Author Index

A

- Abad, J.-L., 397
Abel, S., 963
Adachi, J., 891
Adlof, R.O., 1
Agellon, L.B., 343, 603
Agostoni, C., 633
Ahmad, I., 285, 595
Ahmad, M.U., 285, 595
Ahotupa, M., 507, 639
Aitzetmuller, K., 571
Akahoshi, A., 25, 601
Akimoto, N., 179
Akoh, C.C., 513
Ali, S.M., 285, 595
Alonso, A., 1233
Ambra, R., 459
Anderson, R.E., 1121
Angers, P., 985
Antonelli, A., 681
Antonopoulou, E., 1085
Appu Rao, A.G., 173
Arita, M., 1125
Arnault, N., 527
Aru, J., 985
Asselin, G., 95
Astorg, P., 527
Attar-Bashi, N.M., 929
Aubert, E., 75
Aukema, H.M., 207
Ayotte, P., 617
Azcan, N., 487

B

- Babaei, S., 97
Bach, T.J., 723
Bahramian, N., 243
Balliano, G., 1007
Bankovic-Calic, N., 207
Banni, S., 1143
Bard, M., 747
Bartolini, G.L., 135
Başer, K.H.C., 487
Baskaran, V., 627
Battaglene, S.C., 215
Bauchart, D., 125
Bauman, D.E., 365, 1197
Baumgard, L.H., 537
Bautista, J.M., 1085
Beattie, J.R., 407, 897
Beck, S.A., 1187
Becker, C., 1

- Beebe, P., 811
Belikova, N., 1133
Belkacem, K., 985
Bell, J.G., 223
Bell, S.E.J., 407, 897
Belury, M.A., 1143
Bergeron, N., 985
Blasevich, M., 1143
Bondjers, G., 243
Bong, S.C., 561
Bordin, S., 857
Borgaard, C., 897
Boris, J., 1191
Borisenko, G.G., 1133
Boué, C., 325
Boukouvala, E., 1085
Brandt, M.M., 11
Bransden, M.P., 215
Brummer, R.-J.M., 425
Bruneau, S., 617
Bryhn, M., 1177
Buisson, A., 441
Buisson, E., 441
Bütikofer, U., 355

C

- Cabezas, J.A., 111
Cahu, C., 449
Calder, P.C., 1147
Camps, F., 397
Cao, J.-m., 849
Carballeira, N.M., 675
Carta, G., 1143
Caruso, D., 1223
Casaschi, A., 143
Castelluccio, F., 681
Castro, M.-D., 111
Catheline, D., 325
Chao, P.-M., 233
Chapkin, R.S., 1163
Chartré, M., 81
Chen, G.Q., 311, 865
Chen, T.-F., 433
Chen, Y., 1115
Cheng, T.O., 291
Cheon, Y., 1077
Cherian, G., 31
Chirala, S.S., 1045
Choo, Y.M., 561, 1031
Chou, D.-S., 433
Chuah, C.H., 561, 1031
Cimino, G., 681
Clandinin, M.T., 343, 603

- Clouet, P., 849
Cobcroft, J.M., 215
Collomb, M., 355
Colombo, C., 633
Combe, N., 325
Conceição, L.E.C., 449
Conquer, J.A., 117
Cordeddu, L., 1143
Cravotto, G., 1007
Crawford, M.A., 335
Cristea, M., 319
Cruz, H., 675
Cruz-Hernandez, C., 693
Cunningham, M., 389
Curi, R., 857
Czarnecki, S.K., 611
Czernichow, S., 527

D

- De Angelis, L., 633
Degrace, P., 849
De Kock, M., 963
de Lima, T.M., 857
Delmonte, P., 185
Delplanque, B., 325
Delvin, E., 81
Dembitsky, V.M., 933
Demirci, B., 487
Demizeux, L., 849
Desvergne, B., 1093
de Veth, M.J., 365
de Villiers, C., 963
Dewailly, É., 617
Diez, A., 1085
Dinis, M.T., 449
Di-Poï, N., 1093
Dobrzyn, A., 1061
Drozdowski, L.A., 343, 603
Du, Z.-Y., 849
Duan, Z., 37
Dugan, M.E.R., 693
Dunn, D.M., 161
Dunstan, G.A., 215
Durand, D., 125
Duval, S.M., 1

E

- Eckert, G.P., 1239
Edelstein, C., 589
Eitsuka, T., 977
Elgersma, A., 693, 695

Ellen, G., 693, 695
 Emken, E.A., 1
 Erickson, K.L., 135
 Evans, J.J., 273

F

Fabriàs, G., 397
 Favre-Krey, L., 1085
 Fearon, A.M., 897
 Feldtrauer, J.-F., 723
 Fénart, E., 325
 Fezza, F., 193
 Finazzi-Agrò, A., 193
 Flachs, P., 1177
 Fofanov, Y., 821
 Fong, T.-H., 433
 Franzblau, S., 675
 Fujioka, K., 481
 Fujishima, H., 1025
 Fujita, T., 789
 Fujiwara, Y., 179
 Funae, R., 891

G

Galan, P., 527
 Galli, C., 633, 1239
 Gambaro, V., 633
 Gangidi, R.R., 577
 García, F., 389
 Garda, H., 389
 Garg, M.L., 545
 Gavagnin, M., 681
 Gelderblom, W.C.A., 963
 Gentile, L., 811
 Gerber, E., 723
 Ghebremeskel, K., 335
 Gilani, G.S., 601
 Giner, J.-L., 763
 Gingras, S., 617
 Giovannini, M., 633
 Giusto, N.M., 553
 Gjøen, T., 649
 Goeger, M.P., 31
 Gong, H., 795
 Gonzalez-Baró, M.R., 389
 Gorjão, R., 857
 Gotlinger, K., 1125
 Goto, J., 873
 Goto, T., 873
 Grande, S., 1239
 Gravotto, G., 1007
 Gresti, J., 849
 Griñari, J.M., 365
 Gruffat, D., 125
 Gupta, R.K., 881

H

Hamberg, M., 319, 565
 Hartmann, M.-A., 723
 Hashim, M.A., 1031
 Hashimoto, K., 179
 Hasselwander, O., 537
 Hatanaka, T., 1013, 1019
 Hayakawa, M., 469
 He, X., 311, 865
 Hellgren, L.I., 833
 Hemmerlin, A., 723
 Henderson, R.J., 223

Henriksen, E.J., 537
 Henry, J.H., 161
 Hercberg, S., 527
 Hermier, D., 325
 Hernandez, E., 777
 Herrington, H., 51
 Hibbeln, J.R., 1207
 Hicks, K.B., 769, 783
 Hinman, J., 589
 Hirota, Y., 789
 Hoeffler, J.-F., 723
 Hoff, H., 97
 Hohl, R.J., 293
 Holstein, S.A., 293
 Holub, B.J., 617
 Hong, S., 1125
 Honig, A., 425
 Hoppe, G., 97
 Hossen, M., 777
 Hoy, A.J., 955
 Hoy, C.-E., 195
 Hsiao, G., 433
 Hsu, C.-c., 843
 Hsu, S.-C., 233
 Huang, C.j., 233
 Huang, Y., 251
 Hueso, P., 111

I

Ichinose, F., 25
 Igashira, M., 475
 Igashira, T., 43
 Iida, T., 873
 Ikawa, H., 977
 Ikeda, I., 701, 827
 Itabashi, Y., 1013, 1019, 1025
 Itoh, N., 469
 Iwamori, M., 43
 Iwata, T., 25, 475

J

Jacobson, K., 1115
 Jacques, H., 985
 Jandacek, R.J., 993
 Jen, K.-L.C., 441
 Jensen, B., 1191
 Jiang, J., 1133
 Johnson, B.H., 821
 Jones, P.J.H., 87
 Jorgensen, M.H., 195
 Juaneda, P., 19
 Judge, M.P., 421
 Jurjanz, S., 19

K

Kagan, V.E., 1133
 Kajiwara, S., 67
 Kallio, H., 507, 639
 Kallio, H.P.T., 373
 Kalo, P., 915
 Kamido, H., 97
 Kanagasaki, R., 737
 Kaneko, M., 25
 Kaneshiro, E.S., 753
 Kanunfre, C.C., 857
 Kara, M., 487
 Kawashima, H., 265
 Kelley, D.S., 135

Kemppinen, A., 915
 Khan, I.A., 167, 659
 Khan, S.I., 167, 659
 Khor, H.T., 561
 Kilkens, T.O.C., 425
 Kim, I-H., 383
 Kini, V., 1133
 Kishimoto, N., 789
 Kitano, M., 789
 Kizito, S.A., 801
 Koba, K., 25
 Kobayashi, K., 977
 Kobayashi, T., 789
 Kolkovski, S., 215
 Kong, X., 239
 Kopecky, J., 1177
 Kostellow, A., 881
 Kraemer, K., 537
 Kraffe, E., 59
 Kramer, J.K.G., 693
 Krey, G., 1085
 Krishna, U.M., 595
 Kritchevsky, D., 611
 Kuksis, A., 97, 915, 1013, 1019, 1025
 Kuriyama, I., 977
 Kurowska, E.M., 143
 Kurvinen, J.-P., 507, 639
 Kwong, C.D., 675

L

Lam, C.N.W., 583
 Lam, H.S., 687
 Lammi-Keele, C.J., 421
 Lampi, A.-M., 783
 Lands, W.E.M., 1207
 Largeau, C., 75, 491
 Laurent, F., 19
 Lauritzen, L., 195
 Lavigne, C., 985
 Lazarus, C., 1067
 Leaver, M.J., 1085
 Lee, G.-C., 513
 Lee, J.-W., 383
 Lee, K.-W., 383
 Lee, S.-W., 383
 Legrand, P., 325
 Leung, R., 97
 Levy, E., 81
 Li, B., 907
 Li, D., 929
 Li, H., 239
 Li, Y., 161, 1077
 Li, Y.-J., 233
 Liang, W., 51
 Lie Ken Jie, M.S.F., 583
 Lin, A., 811
 Lin, C.-c., 843
 Lin, C.-H., 433
 Lin, F.-J., 233
 Lin, J.-T., 311, 865
 Lin, M.-p., 843
 Lin, Z., 285
 Liu, H., 239
 Liu, J., 737
 Liu, Y., 1037
 Liu, Y.-J., 849
 Liu, Y.X., 667
 Llorach, R., 1239
 Lock, A.L., 1197
 Locy, R., 251
 Lokesh, B.R., 627
 Loosemore, E.D., 421

Losi, G., 185
 Lousberg, R., 425
 Lowy, C., 335
 Lu, J., 207
 Lu, Y.-J., 1055
 Lucas, M., 617
 Luo, Y., 907, 1037

M

Ma, A.N., 561, 1031
 Ma, G., 167, 659
 Maccarrone, M., 193
 MacDonald-Wicks, L.K., 545
 Mackey, B.E., 135
 Maes, M., 425
 Maharaj, N.J., 117
 Mahon, A., 1143
 Malone, M., 273
 Mano, N., 873
 Manthey, J.A., 143
 Mao, Z., 37
 Maoka, T., 179
 Marangoni, F., 633
 Martin, J., 441
 Martín, M.-J., 111
 Martínez-González, M.Á., 1233
 Martins, E.F., 857
 Martín-Sosa, S., 111
 Marty, Y., 59
 Matsuda, S., 1007
 McKeon, T.A., 311, 865
 McLennan P.L., 955
 McMurray, D.N., 1163
 Melis, M.P., 1143
 Meng, X., 37
 Metzger, P., 75, 491
 Michaelsen, K.F., 195
 Michalik, L., 1093
 Mikkelsen, T.B., 195
 Miller, A.L., 821
 Min, Y., 335
 Miyata, S., 873
 Miyazaki, M., 1061
 Miyazawa, T., 259, 475, 977
 Mizushima, Y., 977
 Moindrot, B., 849
 Monge, J.C., 97
 Monteils, V., 19
 Morais, S., 449
 Moreau, R.A., 701, 769, 783
 Morehead, D.T., 215
 Morise, A., 325
 Morrill, G.A., 881
 Morris, M.D., 687
 Moss, B.W., 407, 897
 Mossoba, M.M., 185
 Mouritsen, O.G., 1101
 Mu, H., 373
 Muckle, G., 617
 Müller, H., 833
 Müller, W.E., 1239
 Murru, E., 1143
 Mustafa, J., 167, 659

N

Nagao, T., 789
 Nagasaki, Y., 891
 Nagura, M., 43
 Naito, T., 891
 Nakagawa, K., 259

Nakagiri, H., 827
 Nakamura, M.T., 1077
 Nambara, T., 873
 Napier, J.A., 1067
 Nara, T.Y., 1077
 Nes, W.D., 701, 737
 Nesaretnam, K., 459
 Newsholme, P., 857
 Ng, M.H., 1031
 Nguyen, T.T.M., 737
 Nichols, P.D., 215
 Nicolosi, R.J., 611
 Nieminen, L.R.G., 1207
 Niki, E., 469
 Noisette, N., 527
 Nonaka, K., 25
 Ntambi, J.M., 1061
 Nyalala, J., 687

O

Ochoa, J.J., 1223
 Ogawa, S., 873
 Ogborn, M.R., 207
 Ogita, K., 475
 Ohira, A., 469
 Ohnishi, M., 265
 Okuyama, H., 1025
 Oles, C.J., 11
 Oliaro-Bosso, S., 1007
 Oliw, E.H., 319
 Ollilainen, V., 915
 Olsen, E., 833
 Olsen, S.F., 195, 1191
 Olsson, U., 243
 Ono, K., 259
 Or-Rashid, M., 693
 Østbye, T.K., 649
 Östergren-Lundén, G., 243
 Owen, A.J., 955

P

Parish, E.J., 701, 801, 805
 Parsons, W.D., 87
 Pasquarel, S.J., 553
 Pellizzon, M., 441
 Penn, J.S., 1121
 Peretti, N., 81
 Peter-Przyborowska, B.A., 955
 Petroni, A., 1143
 Pfaffinger, D., 589
 Pfeiffer, A.-M., 365
 Piironen, V., 783
 Pollero, R., 389
 Prazak, T., 1177
 Proctor, A., 577, 687
 Ptock, A., 537

Q

Qi, B., 1067
 Qi, H., 1037
 Qiu, Z., 801, 805
 Quiles, J.L., 1223

R

Rader, J.I., 11
 Radhakrishnan, A., 459

Ramaprasad, T.R., 627
 Ratnayake, W.M.N., 601
 Ravandi, A., 97
 Razak, G., 459
 Reimann, K., 459
 Resnick, L.M., 881
 Rhainds, M., 617
 Rhee, C., 383
 Richardson, A.J., 1215
 Rivera, D., 1239
 Roach, J.A.G., 185
 Robin, J., 449
 Rock, C.O., 1055
 Rohmer, M., 723
 Ronnestad, I., 449
 Rossmeisl, M., 1177
 Ruyter, B., 649
 Ruzickova, J., 1177

S

Saito, H., 997
 Saito, M., 43
 Sakaguchi, K., 977
 Sakai, H., 67
 Sakakihara, Y., 43
 Salvador, G.A., 553
 Sambaiah, K., 627
 Sanders, S.R., 537
 Sankaran, D., 207
 Santa Ana, J., 441
 Sargent, J.R., 223
 Satchithanandam, S., 11
 Sato, R., 1013, 1019, 1025
 Sattur, A.P., 173
 Sayanova, O., 1067
 Scanu, A.M., 589
 Schaffer, S., 1239
 Schwab, U.S., 373
 Scislowksi, V., 125
 Secher, N.J., 1191
 Sekhar Rao, K.C., 173
 Selvadurai, K.R., 459
 Serhan, C.N., 1125
 Serinkan, B.F., 1133
 Shane, J.M., 1
 Shaw, J.-F., 513
 Shen, C.-L., 161
 Shen, M.-Y., 433
 Sheu, J.-R., 433
 Shi, J.J., 239
 Shi, Z., 37
 Shibamoto, T., 481
 Shimada, Y., 789
 Shimoda, A., 25
 Shu, R.G., 667
 Sieber, R., 355
 Simon, V.A., 135
 Sinclair, A.J., 929
 Sjövall, J., 703
 Sjövall, O., 507, 639
 Skovgaard, I.M., 195
 Skrede, A., 833
 Smith, W.G., 687
 Smuts, C.M., 963
 Soltani, M., 491
 Sørensen, J.D., 1191
 Soudant, P., 59
 Spease, C.J., 11
 Spivak, V., 811
 Sponarova, J., 1177
 Stoll, L., 811
 Straarup, E.-M., 195

Stubhaug, I., 153
 Stulnig, T.M., 1171
 Sturley, S.L., 747
 Su, Z., 239
 Sugano, M., 25, 601
 Sugawara, T., 259
 Sun, Y., 239
 Suomela, J.-P., 507, 639
 Suzuki, A., 1019
 Suzuki, T., 475
 Swanevelder, S., 963
 Switzer, K.C., 1163

T

Tagiri-Endo, M., 259
 Tagliapietra, S., 1007
 Tahvonen, R.L., 373
 Takemura, M., 977
 Tan, R.X., 667
 Tanito, M., 469
 Teachey, M.K., 537
 Templado, J., 681
 Tepper, S.A., 611
 Theriault, A.G., 143
 Thomas, B., 335
 Thompson, E.B., 821
 Thomson, A.B.R., 343, 603
 Tian, L.-x., 849
 Tisdale, M.J., 1187
 Tocher, D.R., 223, 1085
 Tong, Y., 239
 Torstensen, B.E., 153
 Tran, T.-N., 649
 Tritsch, D., 723
 Tsevegsuren, N., 571
 Tso, P., 993
 Tsutsumi, K., 25
 Tsuzuki, T., 475, 977
 Turner, C., 311
 Tvrzicka, E., 1177
 Tyurin, V.A., 1133
 Tyurina, Y.Y., 1133

U

Ueno, Y., 891

V

Valachovic, M., 747
 Vanstone, C.A., 87
 Vecka, M., 1177
 Veeramachaneni, P., 737
 Vegusdal, A., 649
 Verlengia, R., 857
 Viola, F., 1007
 Virgili, F., 459
 Visioli, F., 1239
 Vosmann, K., 571

W

Wahle, K.W.J., 1223
 Wahl, W., 1093
 Wakil, S.J., 1045
 Walker, L.A., 167, 659
 Walker, P.M., 1
 Wan, B., 675
 Wang, F.W., 667
 Wang, Y., 87
 Wang, Y.-m., 827
 Warren, J.M., 135
 Watanabe, Y., 789
 Watkins, B.A., 161
 Webb, M.S., 821
 Weete, J.D., 251
 Weill, P., 325
 Wentzinger, L., 723
 Wiedmann, T.S., 51
 Wilcox, L.J., 747
 Wild, G.E., 343, 603
 Williams, J.R., 701, 795
 Wilson, T.A., 611
 Woudstra, T.D., 343, 603
 Wright, S., 611

X

Xiao, C., 239
 Xu, X., 373

Y

Yamamoto, T., 475
 Yamasaki, M., 25
 Yamauchi, Y., 25
 Yamauchi-Sato, Y., 475
 Yanagita, T., 827
 Yang, B., 1115
 Yang, Q., 993
 Yang, Y.M., 667
 Yi, J., 907
 Yin, M.-c., 843
 Yli-Jokipii, K.M., 373
 Yonezawa, Y., 977
 Yoshida, H., 977
 Yoshida, Y., 469
 Yoshioka, N., 891
 Young, G.S., 117
 Yurawecz, M.P., 11, 185

Z

Zambonino-Infante, J.L., 449
 Zeyda, M., 1171
 Zhang, G., 907, 1037
 Zhang, S., 239
 Zhang, Y.-M., 1055
 Zhao, H., 763
 Zheng, S., 993
 Zhou, W., 737
 Ziv, E., 81
 Zoltowska, M., 81
 Zou, D., 37
 Zuckermann, M.J., 1101

Subject Index

A

ABSORPTION

decline in lipid, with aging, 603

N-ACETYLGLUCOSAMINE

both galactose and, can be shark repellents, 795

ACQUIRED IMMUNODEFICIENCY SYNDROME

Pneumocystis pneumonia is major cause of death in people with, 753

Actinomadura

phospholipase D preparation from one species of, 1013

ACTIVE

fatty acid glycosides are, amphipathic molecules with hydrophobic and hydrophilic moieties, 933

ACYL COENZYME A CARNITINE ACYLTRANSFERASE

effects associated with up-regulation of, in rat liver, 37

ACYL COENZYME A DIACYLGLYCEROL ACYLTRANSFERASE

effects associated with down-regulation of, in rat liver, 37

ACYL COENZYME A OXIDASE

docosahexaenoic acid capable of enhancing levels of messenger ribonucleic acid expression of carnitine palmitoyltransferase I and, 849

up-regulation of hepatic, and cytochrome P₄₅₀ 4A1 mRNA expression by dietary oxidized frying oil is comparable between male and female rats, 233

ACYL POSITION

differences between fatty acid, distribution in native and randomized dietary fats do not influence lipoprotein and serum cholesterol concentrations, 1

N-ACYLETHANOLAMINES

levels of, in human tumors, 193

ADAPTATION

nature of intestinal, observed in young rats does not necessarily apply in older animals, 343

S-ADENOSYL-L-METHIONINE

inactivation reaction initiated by addition of, 737

recombinant *P. carinii*, :C-24 sterol methyl transferase has preference for lanosterol over zymosterol as substrate, 753

ADIPOCYTES

modulation of gene expression in, 1177

AFFECTIVE DYSREGULATION

fatty acid profile and, in irritable bowel syndrome, 425

AGING

decline in lipid absorption with, 603

isocaloric polyunsaturated fatty acid diet enhances lipid uptake and weight gain in, rats, 343

phospholipase D and phosphatidate phosphohydrolase activities in rat cerebellum during, 553

ALCOHOL BINDING

cholesterol acts as antagonist to, to membranes, 1101

ALKENE(S)

and polyacetylenes from a marine ascidian, 681

dioxiranes display high efficiency for epoxidation of various, 805

ALKYLGlycerides

major monoterpenic alcohols isolated as, from many fruits and some plant species, 933

ALKYNES

and polyacetylenes from a marine ascidian, 681

AMINO-3-HYDROXY-5-METHYL-4-ISOXAZOLEPROPIONIC ACID

extracellular glutamate binding core of GluR2 class of, receptors binds to two neurosteroids, 811

ANIMAL FATTY ACID SYNTHASE

structure and function of, 1045

ANTIBACTERIAL

first communication dealing with two new, and xanthine oxidase inhibitory glycosphingolipids including new metabolite, fusaricide, 667

ANTICANCER ACTIVITY *in vitro*

podophyllotoxin derivatives with one polyunsaturated fatty acid chain at α C₄ showed greater, against a panel of cancer cell lines, 659

ANTIMICROBIAL TARGETS

reductase steps of type II fatty acid synthase as, 1055

ANTIOXIDANT

protection against oxidative stress in ocular tissues is mediated by several, systems, 469

reduction of blood pressure following supplementation with an, 1233

APOLIPOPROTEIN A-I

salmon muscle cells synthesize, 649

APOLIPOPROTEIN B

regulation of apolipoprotein B metabolism by tangeretin, 143

APOPTOSIS

n-3 polyunsaturated fatty acids promote, 1163

ARACHIDONIC ACID(S)

intake of, highly correlated with intake of animal products, 527

linoleic acid is major unsaturated fatty acid in choline phospholipids present in human low density lipoprotein, with, constituting next most prevalent fatty acid, 881

may be useful as lipid biomarker of herbivorous animals, 997

regulation of, in cancer cells by dietary fatty acid intervention, 963

type I diabetes compromises plasma, and docosahexaenoic acid in newborn babies, 335

AREA COMPRESSIBILITY

lipid bilayer can be described in terms of, modulus, 1101

ARTIFICIAL ENZYME

and oxidation of steroids with oxorutheniumporphyrinate complex, 873

ASCIDIANS

first finding of polyacetylenes from marine, 681

ASSOCIATION STUDY

showed that levels of plasma very low density lipoproteins and triglycerides in patients with AA genotype were significantly higher than those with other genotypes, 239

ATHEROSCLEROSIS

conjugated linoleic acid isomer effects, 611

granulocyte macrophage-colony stimulating factor is proposed to have tissue remodeling role in, by inducing secretion of specific extracellular matrix components by smooth muscle cells, 243

oxidative modification of low density lipoprotein involved in pathogenesis of, and coronary heart disease, 1239

ATHEROSCLEROTIC PLAQUES

phospholipids and oxophospholipids in, at different stages of plaque development, 97

ATLANTIC SALMON

β -oxidation of linolenic acid in, hepatocytes treated with different fatty acids, 153

fatty acid metabolism in, muscle cells, 649

modification of flesh fatty acid compositions in, using fish oil finishing diet, 223

ATTENTION DEFICIT/HYPERACTIVITY DISORDER

blood phospholipid fatty acid analysis of adults with and without, 117

AUSTRALIAN MARINE TELEOST

influences of dietary n-3 long-chain polyunsaturated fatty acid on body concentrations of docosahexaenoic acid, docosapentaenoic acid, and eicosapentaenoic acid in larvae of, 215

AUTOXIDATION

and oxidative stability of conjugated fatty acids, 475

B

BACKGROUND DIET

n-3 fatty acids' incorporation into tissues influenced by, 545

BACTERIA

fatty acid biosynthesis in, 1055

- BACTERIAL ADHESION** to gangliosides on thin-layer chromatography, 111
- BACTERIAL DEHYDROXYLATION** low density lipoprotein, method used to evaluate oxidation levels, 639 of bile acids and steroids during enterohepatic circulation, 703
- BASIDIOMYCETE** membrane lipid profile of edible, during growth and cell differentiation, 67
- BENDING RIGIDITY** cholesterol and, 1101
- BILE ACIDS** fifty years with, and steroids in health and disease, 703
- BILE SALTS** interaction of, with gastrointestinal mucins, 51
- BINDING** at low concentrations with exclusion at high concentrations is significant for modulating absorption of lipid aggregates from intestine, 51 of nigerloxin to bovine serum albumin, 173
- BIOAVAILABILITY** dose effect of α -linolenic acid on polyunsaturated fatty acid conversion, and storage in the hamster, 325
- BIODEGRADATION** chloroparaffins long considered nonbiodegradable but, has been reported in some strains of *Rhodococcus* and *Pseudomonas*, 75 hydrocarbon, and its importance in removing petroleum hydrocarbons, oily wastes, or some pesticides from marine and freshwater environments, 491
- BIOSURFACTANTS** low- and high-molecular weight natural, of great interest because of physicochemical and biological properties, 933
- BIOSYNTHESIS** and isomerization of 11-hydroperoxylinoleates by manganese- and iron-dependent lipoxygenases, 319
- BIOSYNTHESIS PATHWAY** of tocopherol and tocotrienol, 561 synthesis of deuterated fatty acids to investigate, of disparlure, 397
- BIRTH WEIGHT** gestational age and, in relation to n-3 fatty acids among Inuit (Canada), 617
- BIVALVE(S)** fatty acid composition of serine, ethanolamine, and choline plasmalogens in some marine, mollusks, 59 lipid and fatty acid composition of, pearl oyster, 997
- BLOOD PRESSURE** beneficial effect of olive oil on, may be associated with high content of antioxidant polyphenols, 1233
- BODY COMPOSITION** comparison of two specific conjugated linoleic isomers on growth characteristics, organ weight, fatty acid profiles, and whole, 537
- BODY WEIGHT** of rats in high-triacylglycerol group increased significantly compared with rats in low-triacylglycerol group, 37
- BORON TRIFLUORIDE ETHERATE** reaction of mono-epoxidized conjugated linoleic acid ester with, complex, 583
- BRAIN TISSUE** analysis of free and sulfated steroids in, 703
- BREAST CANCER CELLS** recently shown that tocotrienols are components of vitamin E responsible for inhibiting growth of human, *in vitro*, 459
- BREAST-MILK** variation in, n-3 long-chain polyunsaturated fatty acids may have implications for visual development of breast-fed infants, 195
- BUTANOLIDE** three new glycoside, derivatives isolated from lichen extract of *Aceraspore gobiensis*, 933
- BUTTER** Raman spectroscopy of clarified, 897 regiospecific determination of short-chain triacylglycerols in, by normal-phase high-performance liquid chromatography with on-line electrospray-tandem mass spectrometry, 915
- C**
- CALCIUM** effect of modified milk fat and, in purified diets on cholesterol metabolism in hamsters, 441
- CALORIC RESTRICTION** effects of eicosapentaenoic acid/docosahexaenoic acid and, on body weight and fat accumulation in mice fed composite high-fat diet, 1177
- CANCER** overall incidence of, significantly lower in countries adhering to or partly adhering to traditional Mediterranean diet, 1223
- CANCER CACHEXIA** effect of, on triacylglycerol/fatty acid substrate cycling in white adipose tissue, 1187
- Candida rugosa* lipase from, efficiently esterifies sterols in waste material after purification of tocopherols with oleic acid, 789 protein engineering and applications of, lipase isoforms, 513
- CANNULATION** in the thoracic duct of rats, 827
- CAPELIN OIL** blended with linseed oil to provide experimental diets for salmon, 223
- CAPILLARY GAS-LIQUID CHROMATOGRAPHY** analysis of fatty acid methyl esters of *Geranium sanguineum* seed oil by, 571
- CAPRIC ACID** positional distribution of, 373
- CARDIAC** dietary fish oil dose- and time-response effects on, phospholipid fatty acid composition, 955
- CARDIOLIPIN** efficient and novel method for synthesis of, and analogs, 285 short, concise route to cardiolipin, and its variants, 595
- CARNITINE PALMITOYLTRANSFERASE I** inhibition of, by malonyl-coenzyme A, 849
- CASEIN** body fat-reducing activity of conjugated linoleic acid more effective when protein source was soy protein rather than, 25
- CEDAR-APPLE RUST** detailed sterol composition of, 763
- CERAMIDE(S)** changes in, composition responsible for ability of lactosylceramides to be recognized by *Helicobacter pylori*, 111 novel, and new glucoceramide from roots of *Incarvillea arguta*, 907
- CEREBELLUM** phospholipase D and phosphatidate phosphohydrolase activities in rat, during aging, 553
- CEREBROSIDE** fraction was extracted from solid-state culture of endophyte, 667 quantitative accumulation of intracellular, acts as intracellular signal that initiates fruiting-body formation in *Lentinula edodes*, 67
- CHAIN LENGTH** effect of, on position of carbonyl stretching mode for liquid-state saturated fatty acid methyl esters, 407
- CHARACTERIZATION** purification and, of an extracellular lipase from *Geotrichum marinum*, 251
- CHEMILUMINESCENCE** ozonized products analyzed by, detection-high-performance liquid chromatography with on-line electrospray mass spectrometry and characterized on the basis of nuclear magnetic resonance and fast-atom bombardment mass spectrometry, 259
- CHEMOECOLOGY** and lipid and fatty acid composition of pearl oyster, 997
- CHEMOMETRIC** quantitative determination of low density lipoprotein oxidation by Fourier transform infrared and, analysis, 687
- CHILDHOOD DEVELOPMENTAL DISORDERS** long-chain polyunsaturated fatty acids in, and psychiatric disorders, 1215

CHILDHOOD PSYCHIATRIC DISORDERS

long-chain polyunsaturated fatty acids in, and developmental disorders, 1215

CHINA

diets play major role in heart diseases in, 291

1-CHLOROOCTADECANE

incorporation of, in fatty acids and β -hydroxy acids of *Marinobacter hydrocarbonoclasticus*, 75

CHOLANOIDOMICS

detailed characterization and quantification of metabolic profiles of steroids and bile acid under different conditions may be termed steriodomics and, 703

CHOLESTEROL

and metabolites constitute class of compounds of great biological importance, 703

effect of modified milk fat and calcium in purified diets on, metabolism in hamsters, 441

essential for both transient confinement zone existence and transient anchorage, 1115

is most abundant sterol in *Pneumocystis*, 753

ozonation of, in the presence of ethanol: identification of a cytotoxic ethoxyhydroperoxide molecule, 259

role of, in formation of special membrane domains and rafts, 1101

status of, in co-occurrence of affective dysregulation and functional gastrointestinal disorders, 425

vacuum steam distillation used to reduce, concentration in animal fats, 985

CHOLESTEROL ABSORPTION

validation of single-isotope-labeled cholesterol tracer approach for measuring human, 87

CHOLESTEROL ESTERS

effects of two purified isomers of conjugated linoleic acid on weights and fatty acid compositions of hepatic triglycerides, phospholipids, free fatty acids, and, 135

CHONDROCYTES

decreased production of inflammatory mediators in human osteoarthritic, by conjugated linoleic acids, 161

CHROMATOGRAPHY

development and application of analytical methods to study bile acids and steroids based on, and mass spectrometry, 703

CHYLOMICRONS

investigation of oxidized triacylglycerol molecules found in, and very low density lipoprotein, 639

rapid clearance of hexachlorobenzene from, 993

CIGARETTE SMOKE

and n-3 polyunsaturated fatty acid metabolism, 633

Clematis vitalba

isolation and structures of two divinyl ether fatty acids from, 565

CLONES

pre-apoptotic changes in gene expression from a single time point in three, of CEM lymphoid leukemia cells, 821

CLUSTER RAFTS

formed by various cross-linking agents including antibodies, 1115

COHORT STUDIES

olive oil consumption and reduced incidence of hypertension examined by, 1233

COLLISION-INDUCED DISSOCIATION

of ammoniated triglycerols in ion-trap mass spectrometer produced spectra dependent on fatty acid position, 273

8(Z)-COLNELEIC ACID

new isomer of colneleic acid, 565

8(Z)-COLNELENIC ACID

new isomer of colnelenic acid, 565

COMPARTMENTATION

biosynthetic, of major isoprenoids found in tobacco BY-2 cells, 723

COMPLEMENTARY DEOXYRIBONUCLEIC ACID MACROARRAY

tumor tissue excised and analyzed for gene expression by means of, array technique, 459

CONJUGATED C₁₈-FATTY ACID

inhibitory action of, on deoxyribonucleic acid polymerase and deoxyribonucleic acid topoisomerase, 977

CONJUGATED FATTY ACIDS

oxidative stability of, 475

cis-9,trans-11 CONJUGATED LINOLEIC ACID

aortic lesions in rabbits fed cholesterol-free regression diet were reduced by 59% with, 611

trans-10,cis-12 CONJUGATED LINOLEIC ACID

aortic lesions in rabbits fed cholesterol-free regression diet were reduced by 65% with, 611

CONJUGATED LINOLEIC ACID DISTRIBUTION

evaluation of, of isomers in milk fat from cows, 355

CONJUGATED LINOLEIC ACID MIXED ISOMERS

aortic lesions in rabbits fed cholesterol-free regression diet were reduced by 65% with, 611

CONJUGATED LINOLEIC ACID(S)

as precursors of distinct family of polyunsaturated fatty acids, 1143

decreased production of inflammatory mediators in human osteoarthritic chondrocytes by, 161

dietary protein modulates effect of, on lipid metabolism in rats, 25

effect of specific, isomers on growth characteristics in obese Zucker rats, 537

form and milk fat depression, 365

hepatic lipid characteristics and histopathology of laying hens fed, or n-3 fatty acid, 31

isomers and fatty acid composition, 135

nutritional manipulation of o-3 fatty acids and, and possible constraints to enhancement in milk and dairy products, 1197

oxidation rate of, and conjugated linolenic acid is slowed by triacylglycerol esterification and α -tocopherol, 475

photochemical production of, from soybean oil, 577

reaction of mono-epoxidized, ester with boron trifluoride etherate complex, 583

synthesis, isolation, and gas chromatography analysis of all the 6,8- to 13,15-cis/trans, isomers, 185

CONJUGATED LINOLENIC ACID

oxidation rate of conjugated linoleic acid and, is slowed by triacylglycerol esterification and α -tocopherol, 475

CONJUGATES

phospholipase D-catalyzed synthesis of novel phospholipid-phytosterol, 777

CONJUGATION

of bile acids and steroids, 703

CORONARY ARTERY DISEASE

data from China support idea that diets could prevent, and hypertension, 291

CORONARY HEART DISEASE

plasma cholesterol has apparent relationship with development of and mortality from, 239

COSMETIC

use of low- and high-molecular weight natural biosurfactants in, industry, 933

COUMARIN DERIVATIVES

as inhibitors of squalene-hopene cyclase, 1007

COUPLING REACTION(S)

between fatty acids and podophyllotoxin carried out by dicyclohexylcarbodiimide, 167

reaction time for estolide-forming, 659

COW MILK

variations in trans-10 18:1 in, fat with starch-based diets, 19

Crassostrea gigas

fatty acid composition of serine, ethanolamine, and choline plasmalogens in, 59

CROSS-NATIONAL

magnitude of relationships between homicide rates and linoleate disappearance similar to or greater than magnitude of relationship between firearm availability and homicide mortality in, analysis, 1207

CRUSTACEAN LIPOVITELLINS

main energy and carbon source in vitellus and are necessary for embryogenesis, 389

CRYSTALLIZATION

selective increase in pinolenic acid in Korean pine nut oil by, and its effect on low density lipoprotein-receptor activity, 383

- CYCLIC ADENOSINE MONOPHOSPHATE**
increased, formation, 433
- CYCLOHEXYLALKANOIC ACIDS**
isolated from *Marinobacter hydrocarbonoclasticus*, 491
- CYSTEINE-CONTAINING AGENTS**
five, are potential multiply protective agents for hyperlipidemia prevention or therapy, 843
- CYTOCHROME P₄₅₀ 4A1**
up-regulation of hepatic acyl-coenzyme A oxidase and, messenger ribonucleic acid expression by dietary oxidized frying oil is comparable between male and female rats, 233
- CYTOKINE(S)**
effect of fatty acids on production of, by Raji cells, 857
long-chain n-3 fatty acids from fish oil decrease production of inflammatory, and eicosanoids, 1147
- CYTOTOXICITY *in vitro***
compounds tested for, against a panel of human cancer cells lines, 167
- D**
- DAIRY COWS**
modifying milk fat composition of, to enhance fatty acids beneficial to human health, 1197
- DECANOIC ACID**
positional distribution of, 373
- DEFENSE MECHANISM**
are 2-methoxylated fatty acids in marine sponges a, against mycobacteria? 675
- 14 α -DEMETHYLASE**
the, enzyme protein of *Pneumocystis* unlike those of many other fungal pathogens, 753
- DEMOSTEROL**
and *Pneumocystis* sterols, 753
- DEOXYRIBONUCLEIC ACID POLYMERASE**
inhibitory action of conjugated C₁₈-fatty acids on, and deoxyribonucleic acid topoisomerase, 977
- DEOXYRIBONUCLEIC ACID TOPOISOMERASE**
inhibitory action of conjugated C₁₈-fatty acids on deoxyribonucleic acid polymerase and, 977
- Δ 5-DESATURASE**
index of, step affected most by smoke exposure, 633
- Δ 6-DESATURASE**
impairment of, in hepatocyte nodules, 963
- DESATURASE(S)**
increased membrane phosphatidylethanolamine resulted in down-regulation of three, in rat liver, 1077
long-chain polyunsaturated fatty acid, identified from animals, fungi, algae, and a few plant species, 1067
measurement of hepatic Δ 6- and Δ 5-, activities, 325
reduction in docosahexaenoic acid may be due to decreased activity of Δ 5, or, 135
- DETERGENT-RESISTANT MEMBRANES**
lipid and protein compositions of, 1115
- DEUTERATED TRACERS**
synthesis of, of fatty acids to investigate biosynthetic pathways of dairy parlure, 397
- DEUTERIUM**
different numbers of, atoms were used to label palmitic and linoleic acids in triacylglycerol mixture, 1
- DIABETES**
conjugated linoleic acid supplements improve metabolic parameters of type 2, in the Zucker diabetic fatty rat, 537
Psammomys obesus shows increased tendency to develop diet-induced, which is associated with cardiovascular disorders, 81
- DIACYLGLYCEROL**
can be transformed into monoacylglycerol by diacylglycerol lipase, 553
characterization of castor, acyltransferase, 311
dietary, prevents high fat diet-induced lipid accumulation in rat liver and abdominal adipose tissue, 37
lymphatic transport of, 827
- DIACYLGLYCEROL ACYLTRANSFERASE**
characterization of castor, 311
expression of, in castor seeds, 865
tangeretin-induced suppression of triacylglycerol synthesis and mass associated with decreased activities of, and microsomal triglyceride transfer protein, 143
- DIACYGLYCEROL LIPASE**
diacylglycerol can be transformed into monoacylglycerol by, 553
- DIASTEROMER**
composition of phosphatidylglycerols, 1025
time course of, formation, 1013
- DICYCLOHEXYLCARBODIIMIDE**
coupling reactions between fatty acids and podophyllotoxin carried out by, 167
quantitative formation of estolides achieved with help of, as coupling reagent and dimethylaminopyridine as catalyst, 659
- DIENE CONJUGATION**
Low density lipoproteins baseline, method used for determination of oxidation levels, 507
- DIET(S)**
a, containing palmitic acid located at the *sn*-2 triacylglycerol position may inhibit n-6 arachidonic acid synthesis, 1
recent data from, enriched with fish oils, 1171
- DIETARY FAT**
incorporation of n-3 fatty acids into plasma and liver lipids of rats and importance of background, 545
- DIETARY FAT LEVEL**
reducing, slows renal disease progression yet maintains normal body growth, 207
- DIETARY INTAKE**
and food sources of n-6 and n-3 polyunsaturated fatty acids in French adult men and women, 527
of essential fatty acids and long-chain polyunsaturated fatty acids in pregnancy, 421
- DIETARY LIPIDS**
decline in absorption of, with aging, 603
- DIETARY PROTEIN**
effect of, and conjugated linoleic acid interaction on lipid metabolism in rats, 601
modulates effect of conjugated linoleic acid on lipid metabolism in rats, 25
- DIFFERENTIATION**
potential role of peroxisome proliferator-activated receptors in melanocyte, and hair follicle growth, 1093
- DIFFUSION**
cholesterol has unique ability to increase lipid order in fluid membranes while maintaining fluidity and, rates, 1101
- DIGESTION**
explanation of failure of rearing fish larvae with formulated diets by lower, efficiency, 449
- DIMETHYL AMINOPYRIDINE**
coupling reactions between fatty acids and podophyllotoxin carried out by dicyclohexylcarbodiimide in presence of catalytic amount of, to produce quantitative yields of desired products, 167
quantitative formation of estolides achieved with help of dicyclohexyl carbodiimide as coupling reagent and, as catalyst, 659
- DIMETHYLDISULFIDE ADDUCTS**
of fatty acid methyl esters of *Geranium sanguineum* seed oil, 571
- DIMETHYLOXAZOLINE DERIVATIVES**
identification of, in different fractions of polyunsaturated fatty acids in the lipids from whole *Megangulus zyongoensis*, 265
- DIOXIRANE**
oxidation of 3 β -substituted Δ^5 -steroids, 805
- DIPHOSPHATIDYLGLYCEROL**
class of complex phospholipids occurring mainly in heart and skeletal muscles and usually associated with membranes of subcellular fractions showing high metabolic activity, 285
short, concise route to diphasphatidylglycerol (cardiolipin) and its variants, 595
- DISPARLURE**
synthesis of deuterated fatty acids to investigate biosynthetic pathway of, 397

DITERPENES

as product of isoprenoid biosynthetic pathway, 293

DIVINYL ETHER SYNTHASE

close structural relationship between enzyme in *Clematis vitalba* and, in potato and tomato seems likely, 565

DOCOSAHEXAENOIC ACID

effect of, on visual acuity in infants, 195

effects of eicosapentaenoic acid and, on proliferation, cytokine production, and gene expression in Raji cells, 857

greater intakes of seafood rich in eicosapentaenoic acid and, correlated with lower rates of homicide mortality, 1207

induction of peroxisomal activities responsible for lower contents of eicosapentaenoic acid and, in body lipids of fenofibrate-treated rainbow trout, 849

influences of dietary n-3 long-chain polyunsaturated fatty acid on body concentrations of, in larvae of Australian marine teleost fish, 215

intakes of eicosapentaenoic acid and, highly correlated with fish and seafood intakes, 527

level of, significantly lower in adults with attention deficit/hyperactivity disorder symptoms, 117

linseed oil can be used as substitute for fish oil in seawater salmon feeds and reductions in, and eicosapentaenoic acid can be largely overcome with finishing diets high in fish oil before harvest, 223

low doses of fish oil produce marked changes in myocardial levels, 955

novel mediators generated from eicosapentaenoic acid and, that display potent bioactions, 1125

role of, in the retina, 1121

type 1 diabetes compromises plasma arachidonic acid and, in newborn babies, 335

DOCOSAPENTAENOIC ACID

influences of dietary n-3 long-chain polyunsaturated fatty acid on body concentrations of, in larvae of Australian marine teleost, 215

DRUG DELIVERY

attention focusing on use of cardiolipin in therapeutic imaging, diagnostic imaging, as contrast agents, and in, 285

cardiolipin utilized in, systems in form of liposomes to enhance therapeutic efficacy of antitumor drugs, 595

E**EICOSANOIDS**

long-chain n-3 fatty acids from fish oil decrease production of inflammatory cytokines and, 1147

EICOSAPENTAENOIC ACID

effects of, and docosahexaenoic acid on proliferation, cytokine production, and gene expression in Raji cells, 857

greater intakes of seafood rich in, and docosahexaenoic acid correlated with lower rates of homicide mortality, 1207

high levels of arachidonic acid and, in lipids of pearl oyster suggest effect of lipids of specific phytoplankton, 997

induction of peroxisomal activities responsible for lower contents of, and docosahexaenoic acid in body lipids of fenofibrate-treated rainbow trout, 849

influences of dietary n-3 long-chain polyunsaturated fatty acid on body concentrations of, in larvae of Australian marine teleost fish, 215

intakes of docosahexaenoic acid and, highly correlated with fish and seafood intakes, 527

linseed oil can be used as substitute for fish oil in seawater salmon feeds and reductions in docosahexaenoic acid and, can be largely overcome with finishing diets high in fish oil before harvest, 223

novel mediators generated from, and docosahexaenoic acid that display potent bioactions, 1125

Elaeis guineensis

developmental study on appearance of tocopherols and tocotrienols in developing palm mesocarp, 561

ELECTROSPRAY IONIZATION

ions of triacylglycerols produced by, 915

method based on high-performance liquid chromatography and, -mass

spectrometry optimized and applied to analysis of molecular structures of oxidized triacylglycerols in low density lipoproteins, 507

method based on reversed-phase high-performance liquid chromatography and, -mass spectrometry used for analysis of oxidized triacylglycerol molecules, 639

 α -ELEOSTEARIC ACID

as strongest inhibitor of deoxyribonucleic acid polymerases and deoxyribonucleic acid topoisomerases, 977

oxidative stability of, examined compared with linoleic acid, α -linolenic acid, and conjugated linoleic acid, 475

ELONGASE(S)

efficient reconstitution of long-chain polyunsaturated fatty acid, in transgenic plants, 1067

reduction in docosahexaenoic acid may be due to decreased activity of $\Delta 5$ desaturase or, 135

ENANTIOMER

phosphorylation of, diacylglycerol, 1025

ENDOPHYTE

cerebroside fraction was extracted from solid-state culture of, 667

ENOYL-ACYL CARRIER PROTEIN REDUCTASE

and β -ketoacyl-acyl carrier protein reductase are inhibitors that target two reductase steps of the type II fatty acid synthase system, 1055

ENZYME ACTIVITY

could be regulated by some specific protein kinases, 311

ENZYME INHIBITOR

computer-simulated drug design of, compounds, 977

ENZYME-LINKED IMMUNOSORBENT ASSAY

determination of interleukin 8 concentration in culture media by, 589

EPIDEMIOLOGY

of homicide mortality in relation to linoleic acid consumption, 1207

EPIDERMIS

role of peroxisome proliferator-activated receptors in, homeostasis, 1093

EPIDIDYMAL

deoxyribonucleic acid concentration higher in dorsolumbar than, fat, 1177

EPIMERS

novel to-3-derived mediators and their endogenous aspirin-triggered, 1125

EPOXIDATION

most common reaction of dioxiranes is, 805

EPOXIDES

mild reaction conditions allow for isolation of extremely labile, 805

EPOXY CAROTENOIDS

characterization of, by fast atom bombardment collision-induced dissociation mass spectrometry/mass spectrometry, 179

EPOXY FATTY ESTER

conversion of, by boron trifluoride etherate, 583

ERGOSTEROL

dominant sterol in plasma membranes of fungal cells, 1101

inhibition of, biosynthesis is proven therapeutic target, 737

ERGOSTEROL BIOSYNTHESIS INHIBITORS

gene expression patterns in sterol pathway following treatment with, 737

ERYTHROCYTE

determination of, membrane fatty acid composition, 955

ESSENTIAL FATTY ACIDS

dietary intake of, and long-chain polyunsaturated fatty acids in pregnancy, 421

individuals vary in efficiency of their, conversion mechanisms, 117

physiological properties of, important in normal and diseased tissues, 1121

ESTERIFICATION

sterols can be converted to their fatty acid esters by lipase-catalyzed, 789

ESTOLIDES

novel fatty, of podophyllotoxin, 659

ETHOXYHYDROPEROXIDE

ozonation of cholesterol in the presence of ethanol: identification of a cytotoxic, molecule, 259

- EXCLUDED VOLUME**
slope related to, of mucin, 51
- EYE**
distribution of tocopherols and tocotrienols in the, 469
- F**
- FARNESOL**
is regulatory substrate derived from isoprenoid pathway, 737
- FAS-INDUCED APOPTOSIS**
cytochrome c release required for phosphatidylserine peroxidation during, in lung epithelial A549 cells, 1133
- FAST ATOM BOMBARDMENT-COLLISION INDUCED DISSOCIATION-TANDEM MASS SPECTROMETRY**
characterization of epoxy carotenoids by, 179
- FAT**
determination of potential and limitations of Raman spectroscopy for, analysis, 407
- FATTY ACID COMPOSITION**
method developed for analysis of, in cereal products, 11
of serine, ethanolamine, and choline plasmalogens in some marine bivalves, 59
- FATTY ACID CYCLING**
measurement of rates of, in triacylglycerols, 1187
- FATTY ACID METABOLISM**
Atlantic salmon muscle cells, 649
- FATTY ACID METHYL ESTERS**
critical evaluation of Raman spectroscopy for analysis of, 407
- FATTY ACID OXIDATION**
peroxisome proliferator-activated receptor α regulates, 1077
- FATTY ACID STIMULATION**
of salmon hepatocytes, 153
- FATTY ACID SYNTHASE**
reductase steps of type II, as antimicrobial targets, 1055
structure and function of animal, 1045
- FATTY ACID SYNTHESIS**
unique effect of polyunsaturated fatty acids suggests that sterol regulatory element binding protein-1c may regulate unsaturated, for glycerolipids and cholesteryl esters, 1077
- FATTY ACID TRANSPORT**
regulation of β -oxidation activity in primary Atlantic salmon hepatocytes seems to be at level of fatty acid uptake and, 153
- FATTY ACID(S)**
are 2-methoxylated, in marine sponges a defense mechanism against mycobacteria?, 675
determination of, composition of plasma phospholipids and serum cholesterol in control group irritable bowel syndrome group, 425
dietary determination of, 441
dietary fish oil dose- and time-response effects on cardiac phospholipid, composition, 955
effects of hydrocarbon structure on, fatty alcohol, and β -hydroxy acid composition in the hydrocarbon-degrading bacterium *Marinobacter hydrocarbonoclasticus*, 491
first study targeting different molecular components, such as tubulin and topoisoererase II, by, derivatives of podophyllotoxin, 659
glycosides of, and fatty alcohols, 933
identification of minor, and various non-methylene-interrupted diene isomers in mantle, muscle, and viscera of marine bivalve *Megangulus zyonoensis*, 265
incorporation of 1-chlorooctadecane in, and β -hydroxy acids of *Marinobacter hydrocarbonoclasticus*, 75
induce increased granulocyte macrophage-colony stimulating factor secretion through protein kinase C-activation in THP-1 macrophages, 243
lactational changes in the, composition of human milk gangliosides, 111
modification of flesh, compositions in Atlantic salmon using fish oil finishing diet, 223
modifying milk fat composition of dairy cows to enhance, beneficial to human health, 1197
- n-3, inflammation and immunity in relation to postsurgical and critically ill patients**, 1147
- of the seeds of *Origanum onites* L. and *Origanum vulgare* L., 487
- Raman spectroscopy used to predict abundance of, in clarified butterfat, 897
- synthesis and anticancer activities of, analogs of podophyllotoxin, 167
- n-3 FATTY ACID(S)**
dietary fat containing, in renal injury, 207
effect of rod outer segments, on retinal membrane function, 1121
fish oil intake and, in breast milk, 1191
hepatic lipid characteristics and histopathology of laying hens fed conjugated linoleic acid or, 31
influenced by background diet, 545
supplementation and delivery of, through spray-dried milk reduces serum and liver lipids in rats, 627
- ω -3 FATTY ACID(S)**
and role of docosahexaenoic acid in the retina, 1121
level of total, significantly lower in adults with attention deficit/Hyperactivity disorder symptoms, 117
nutritional manipulation of, and conjugated linoleic acid and possible constraints to enhancement in milk and dairy products, 1197
- trans FATTY ACIDS**
effects of, in milk fat, 19
in foods, 11
- FATTY ALCOHOL(S)**
and β -hydroxy acids analyzed as trimethylsilyl ethers, 75
effects of hydrocarbon structure on fatty acid, and β -hydroxy acid composition in the hydrocarbon-degrading bacterium *Marinobacter hydrocarbonoclasticus*, 491
glycosides of fatty acids and, 933
- FENITROTHION**
induced structural and functional perturbations in the yolk lipoproteins of the shrimp, 389
- FENOFIBRATE**
induction of peroxisomal activities responsible for lower contents of eicosapentaenoic acid and docosahexaenoic acid in body lipids of, -treated rainbow trout, 849
- FERRIC**
interaction between, ions, phospholipid hydroperoxides, and the lipid phosphate moiety at physiological pH, 881
- FINISHING DIETS**
linseed oil can be used as substitute for fish oil in seawater salmon feeds and reductions in docosahexaenoic acid and eicosapentaenoic acid can be largely overcome with, high in fish oil before harvest, 223
- FISH LARVAE**
quantitative lipid requirements of marine, 449
- FISH OIL(S)**
dietary, dose- and time-response effects on cardiac phospholipid fatty acid composition, 955
gestational duration and birth weight could be improved with, supplementation during pregnancy, 617
intake and n-3 fatty acids in breast milk, 1191
long-chain n-3 fatty acids from, decrease production of inflammatory cytokines and eicosanoids, 1147
produced more malonaldehyde, 481
- FLAVONOID**
data suggest that tangeretin, novel hypolipidemic, from citrus fruits, lowers secretion of apolipoprotein B-containing lipoprotein by decreasing cellular triacylglycerol availability via at least three major mechanisms, 143
- FLUORESCENCE**
measurement, 389
- FOOD**
glycosides of fatty acids and alcohols of commercial interest for pharmaceutical and, industries, 933
- FOSMIDOMYCIN**
is mycotoxin and inhibitor of 2-C-methyl-D-erythritol 4-phosphate pathway, 723
- FOURIER TRANSFORM INFRARED**
quantitative determination of low density lipoprotein oxidation by, and chemometric analysis, 687

FRAGMENT IONS

detection of, of epoxy carotenoids by fast atom bombardment collision-induced dissociation tandem mass spectrometry, 179

FREE FATTY ACIDS

concentration of, in ZP102 cells twice that in CHO-K1 cells, 43

FREE RADICAL

and distribution of tocopherols and tocotrienols to rat ocular tissues after topical ophthalmic administration, 469

FRUITING-BODY FORMATION

identification of an alteration in membrane lipids of *Lentinula edodes* during growth and cell differentiation found only during, 67

FUEL PARTITIONING

and regulation of stearoyl-coenzyme A desaturase expression, 1061

FUNCTION

structure and, of animal fatty acid synthase, 1045

FUNCTIONAL FOODS

awareness of potential health benefits of various microcomponents in foods has given rise to concept of, 1197

FUNGAL METABOLITE

spectroscopic study of interaction of nigerloxin with, 173

***Fusarium* sp.**

antibacterial and xanthine oxidase inhibitory cerebrosides from, 667

FUSARUSIDE

first communication dealing with two new antibacterial and xanthine oxidase inhibitory glycosphingolipids including, a new metabolite, 667

G**GANGLIOSIDES**

lactational changes in the fatty acid composition of human milk, 111

GAS CHROMATOGRAPHY

foods were purchased from local supermarkets, weighed, hydrolyzed, converted to fatty acid methyl esters, and analyzed by, 11 oxygen volume absorbed by fatty acids determined by using, 475

GAS CHROMATOGRAPHY-MASS SPECTROMETRY

dimethyldisulfide adducts of fatty acid methyl esters of *Geranium sanguineum* seed oil analyzed by, 571

GASTRIC MUCIN

porcine, characterized and high carbohydrate contents found, 51

GEMINI

new generation of, surfactants, 933

GENDER EFFECT

significant, shown since female rats fed oxidized frying oil diet had significantly lower cytochrome P₄₅₀ 4A protein than male rats fed same diet, 233

GENE EXPRESSION

effects of eicosapentaenoic acid and docosahexaenoic acid on function and, of Raji cell line, 857

GENE MICROARRAY ANALYSIS

used to find network of genes involved in glucocorticoid-evoked cell death, 821

GENE REGULATION

in maturing castor seed controlled at posttranscriptional level, 865

GENE STRUCTURE

main difference in, between fish and mammalian receptors lies within the exons coding for the E domain, 1085

GENES

identification of, leading to glucocorticoid-induced leukemic cell death, 821

GENETIC ENGINEERING

controversy over whether organisms modified through, should be taken into consideration by molecular biotechnologists, 513

Geotrichum

lipase from *G. marinum* is different from lipases of other, species, 251

GERANIACEAE

or *Geranium sanguineum* seed oil is new source of petroselinic and vernolic acid, 571

Geranium sanguineum

Geraniaceae or, seed oil is new source of petroselinic and vernolic

acid, 571**GESTATIONAL AGE**

and birth weight in relation to n-3 fatty acids among Inuit (Canada), 617

GESTATIONAL DIABETES MELLITUS

increased dietary long-chain polyunsaturated fatty acids may be beneficial to developing fetus for women with, 421

GLUCOCERAMIDE

new, from *Pellionia repens*, 1037

novel ceramides and new, from roots of *Incarvillea arguta*, 907

GLUCOCORTICOID

identification of genes leading to, -induced leukemic cell death, 821

GluR2

identification of neurosteroid binding site contained within, -S1S2 domain, 811

GLUTAMATE RECEPTORS

play major role in neural cell plasticity, growth, and maturation, 811

GLUTATHIONE

regulation of oxidative status by, of importance with regard to tumor growth, 963

GLYCATED LOW DENSITY LIPOPROTEIN

impact of *in vivo*, on platelet aggregation and monocyte chemotaxis in diabetic *Psammomys obesus*, 81

GLYCEROL

asymmetric *in vitro* synthesis of diastereomeric phosphatidylglycerols from phosphatidylcholine and, by bacterial phospholipase D, 1013

effect of temperature on stereoselectivity of phospholipase D toward, in transphosphatidylation of phosphatidylcholine to phosphatidylglycerol, 1019

GLYCOSIDE(S)

of fatty acids and fatty alcohols, 933

produced by glycosylation, 795

GLYCOSPHINGOLIPIDS

first communication dealing with two new antibacterial and xanthine oxidase inhibitory, including new metabolite, fusaraside, 667

GLYOXAL

malonaldehyde, and methylglyoxal are products of lipid peroxidation that are implicated in various diseases, 481

GRANULOCYTE MACROPHAGE-COLONY STIMULATING FACTOR

fatty acids induce increased, secretion through protein kinase C-activation in THP-1 macrophages, 243

GRASS

conjugated linoleic acid isomers in the milk fat from cows fed, at different altitudes, 355

GUINEA PIG

fasting and postprandial lipid response to the consumption of modified milk fats in, 985

H**HAIR FOLLICLE**

potential role of peroxisome proliferator-activated receptors in, growth and melanocyte differentiation, 1093

HAMSTER(S)

dose effect of α-linolenic acid on polyunsaturated fatty acid conversion, bioavailability, and storage in the, 325

effect of modified milk fat and calcium in purified diets on cholesterol metabolism in, 441

HEPATIC LIPID

effect of diacylglycerol on liver weight, hepatic enzymes, and, in rats, 37

HEPATIC LIPID CHARACTERISTICS

and histopathology of laying hens fed conjugated linoleic acid or n-3 fatty acid, 31

HEPATOCYTE NODULES

modulation of fatty acids and oxidative status in, 963

HEPATOCYTES

β-oxidation of linolenic acid in Atlantic salmon, treated with different fatty acids, 153

- HepG2**
role of tangeretin on regulation of apolipoprotein B and lipid metabolism in, human hepatoma cell-line, 143
- HEXACHLOROBENZENE**
rapid clearance of, from chylomicrons, 993
- HIGHLY UNSATURATED FATTY ACID(S)**
increase in proportion of n-3, measured in umbilical cord plasma phospholipids was associated with significantly longer gestational age, 617
role of peroxisome proliferator-activated receptors in feedback regulation of, synthesis, 1077
- HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY**
determination of relative amounts of positional isomers in complex mixtures of triglycerides using reversed-phase, -tandem mass spectrometry, 273
method based on, and electrospray ionization-mass spectrometry optimized and applied to analysis of molecular structures of oxidized triacylglycerols in low density lipoproteins, 507
method based on reversed-phase, and electrospray ionization-mass spectrometry used for analysis of oxidized triacylglycerol molecules, 639
ozonized products analyzed by chemiluminescence detection-, with on-line electrospray mass spectrometry and characterized on the basis of nuclear magnetic resonance and fast-atom bombardment mass spectrometry, 259
phosphatidylserine plasmalogen, phosphatidylethanolamine plasmalogen, and phosphatidylcholine plasmalogen subclasses isolated by, 59
- HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY-CHEMILUMINESCENCE DETECTION**
quantification of phosphatidylcholine hydroperoxide in human plasma studied using, 891
- HISTOPATHOLOGY**
hepatic lipid characteristics and, of laying hens fed conjugated linoleic acid or n-3 fatty acid, 31
- HOMICIDE**
mortality and linoleic acid, 1207
- HULLESS BARLEY**
pearling fines of, rich in lipids, 783
- HUMAN BREAST MILK**
effect of fish oil supplementation in late pregnancy and early lactation on the n-3 fatty acid content in human breast milk, 1191
- HUMAN CANCER CELL LINES**
new molecules investigated for *in vitro* anticancer activity against a panel of, 167
- HUMAN HEALTH**
modifying milk fat composition of dairy cows to enhance fatty acids beneficial to, 1197
- HUMAN MILK**
lactational changes in the fatty acid composition of, gangliosides, 111
- HUMAN PLASMA**
quantification of phosphatidylcholine hydroperoxide in, 891
- HUMAN TUMORS**
levels of N-acylethanolamines in, 193
- HUMAN(S)**
effect of triacylglycerol structure on absorption and metabolism of isotope-labeled palmitic and linoleic acids by, 1
validation of single-isotope-labeled cholesterol tracer approach for measuring, cholesterol absorption, 87
- HYDROCARBONS**
effects of hydrocarbons on *Marinobacter hydrocarbonoclasticus* lipids, 491
- HYDROLYSIS**
in vitro, of phytosterol conjugates, 769
- HYDROPEROXIDE(S)**
interaction between ferric ions, phospholipid, and the lipid phosphate moiety at physiological pH, 881
survey of fatty acid, metabolism in plant leaves, 565
- 11-HYDROPEROXYLINOLEATES**
biosynthesis and isomerization of, by manganese- and iron-dependent lipoxygenases, 319
- HYDROXY ACID(S)**
effects of hydrocarbon structure on fatty acid, fatty alcohol, and β -composition in the hydrocarbon-degrading bacterium *Marinobacter hydrocarbonoclasticus*, 491
incorporation of 1-chlorooctadecane in fatty acids and β -, of *Marinobacter hydrocarbonoclasticus*, 75
- 3-HYDROXY-3-METHYLGLUTARYL-COENZYME A REDUCTASE**
key enzyme in mevalonate pathway is, 723
- 3-HYDROXY-3-METHYLGLUTARYL-COENZYME A REDUCTASE GENE**
8302A/C and (TTA)n polymorphisms in the, may be associated with some plasma lipid metabolic phenotypes in patients with coronary heart disease, 239
- 3 α -HYDROXY-5 β -PREGNAN-20-ONE SULFATE**
dimethyl sulfoxide and methanol found to solubilize both pregnenolone sulfate and, 811
- HYDROXYL RADICALS**
released from activated platelets, 433
- HYDROXYMETHYLGLUTARYL COENZYME A REDUCTASE INHIBITORS**
discovery of, enabled understanding of importance of roles of isoprene moieties in posttranslational modification of many signaling proteins, 293
- HYPERLIPIDEMIA**
five cysteine-containing agents are potential multiply protective agents for, prevention or therapy, 843
- HYPERTENSION**
data from China support idea that diets could prevent coronary artery disease and, 291
olive oil consumption and reduced incidence of, 1233
- HYPHAE**
treated cells appear elongated with immature, 737
- HYPOCHLOROUS ACID**
scavenging properties of Mediterranean plant foods, 1239
- HYPOLIPIDEMIC PROPERTY**
and delivery of n-3 fatty acids through enriched spray-dried milk powder, 627
- I**
- ILEAL LIPID BINDING PROTEIN**
located predominantly in distal ileum, 603
- IMMUNE FUNCTION**
effects of monounsaturated fatty acids/olive oil on, 1223
parenteral or enteral nutrition including n-3 fatty acids appears to preserve, better than standard formulas, 1147
- IMMUNE RESPONSE**
effect of polyunsaturated fatty acids on initiation of, at molecular level, 1171
- IMMUNOHISTOCHEMISTRY**
abundance of ileal lipid binding protein measured by, 603
- Incarvillea arguta*
novel ceramides and new glucoceramide from roots of, 907
- INCORPORATION**
multiple-isotope tracer methodology provides more accurate comparison of fatty acid, and metabolite synthesis, 1
- INDUSTRY**
surfactants widely used in modern, 933
- INERT DIET**
relatively good results in marine larval rearing have been achieved recently with exclusive use of, 449
- INFANT DEVELOPMENT**
effect of maternal fish oil supplementation on, 195
- INFLAMMATION**
n-3 fatty acids, and immunity in relation to postsurgical and critically ill patients, 1147
- INFLAMMATORY DISORDERS**
polyunsaturated fatty acids of n-6 series provide some beneficial effects on distinct, 1171

INSECT SEX PHEROMONE

study of, of gypsy moth, 397

INTESTINAL FATTY ACID BINDING PROTEIN

has high affinity for binding long-chain fatty acids, 603

INTESTINAL MUCIN

rat, characterized and high carbohydrate contents found, 51

INTESTINE

aging associated with change in morphology and absorptive capacity of small, 343

aging associated with changes in absorptive capacity of small, 603

INTRACELLULAR Ca²⁺

lowering of, mobilization, 433

IODINE

optimization of, and photoisomerization time by response surface modeling, 577

IONOTROPIC GLUTAMATE RECEPTORS

degree to which, conduct current depends on binding of extracellular ligands, 811

IRON

biosynthesis and isomerization of 11-hydroperoxylinoleates by manganese- and, dependent lipoxygenases, 319

catalyzed phospholipid peroxidation, 881

IRRITABLE BOWEL SYNDROME

fatty acid profile and affective dysregulation in, 425

ISOENZYMEScodon usage problem hindered use of recombinant *Candida rugosa* lipase, 513**ISOFORMS**protein engineering and applications of *Candida rugosa* lipase, 513**ISOMERIZATION**

biosynthesis and, of 11-hydroperoxylinoleates by manganese- and iron-dependent lipoxygenases, 319

ISOPRENOIDS

diversity of form and function of, 293

review of tobacco BY-2 cells as excellent system to study biosynthesis and function of sterols and other, 723

ISOPROPYLIDENEGLYCEROL

physicochemical properties of, 1025

K**KERATINOCTYES**

effect of peroxisome proliferator-activated receptors on metabolism of lipids in, 1093

β-KETOACYL-ACYL CARRIER PROTEIN REDUCTASE

and enoyl-acyl carrier protein reductase are inhibitors that target two reductase steps of the type II fatty acid synthase system, 1055

7-KETO-Δ⁵-STEROLS

review of chemical syntheses of, 801

KETONE

steroids bearing, functionality at carbon-7 found commonly in nature, 801

KOREAN PINE NUT OIL

selective increase in pinolenic acid in, by crystallization and its effect on low density lipoprotein-receptor activity, 383

L**LACTATION**

effect of fish oil supplementation in late pregnancy and early, on the n-3 fatty acid content in human breast milk, 1191

LAMIACEAEplant family, includes *Origanum onites* L. and *Origanum vulgare* L., 487**LANOSTEROL**

not able to form rafts, 1101

LANOSTEROL SYNTHASE

recombinant, did not accumulate in lipid particles, 753

LARVAE

influences of dietary n-3 long-chain polyunsaturated fatty acid on body concentrations of docosahexaenoic acid, docosapentaenoic acid, and eicosapentaenoic acid in, of Australian marine teleost, 215

LAYING HENS

hepatic lipid characteristics and histopathology of, fed conjugated linoleic acid or n-3 fatty acid, 31

Lentinula edodes

membrane lipid profile of edible basidiomycete, during growth and cell differentiation, 67

LEPTIN

adipocyte-derived hormone that stimulates oxidation of fatty acids, 1061

LEUKEMIC CELL DEATH

identification of genes leading to glucocorticoid-induced, 821

LIGANDS

sea bass receptors share common, with their mammalian or amphibian counterparts, 1085

LINOLEIC ACID

could improve essential fatty acid intake of French population by adjusting, to α-linolenic acid intake ratio, 527

effect of triacylglycerol structure on absorption and metabolism of isotope-labeled palmitic and, by humans, 1

homicide mortality and, 1207

iron-catalyzed phospholipid peroxidation and, 881

photochemical production of conjugated, from soybean oil, 577

stimulation of granulocyte macrophage-colony stimulating factor secretion by, and phorbol myristate acetate appear to be calcium dependent, 243

LINOLENIC ACIDseed oil composition of *Origanum onites* L. includes palmitic acid, stearic acid, oleic acid, linoleic acid, and, 487**α-LINOLENIC ACID**

and the risk of prostate cancer, 929

could improve essential fatty acid intake of French population by adjusting linoleic acid to, intake ratio, 527

dose effect of, on polyunsaturated fatty acids conversion, bioavailability, and storage in the hamster, 325

partial hydrogenation with hydrazine carried out for both γ-linolenic acid and, 185

γ-LINOLENIC ACID

influence of, on nodule fatty acid profile, 963

partial hydrogenation with hydrazine carried out for both α-linolenic acid and, 185

LINSEED OIL

replacement of dietary fish oil with increasing levels of, 223

LIPASE(S)*Candida rugosa*, efficiently esterifies sterols in waste material after purification of tocopherols with oleic acid, 789

extracellular, are versatile enzymes used to catalyze both hydrolysis and synthesis of ester compounds, 513

purification and characterization of an extracellular, from *Geotrichum marinum*, 251**LIPID ABSORPTION**

and lymphatic transport of diacylglycerol, 827

LIPID BILAYER

on lowering temperature, undergoes phase transition, 1101

LIPID CHAIN ORDER

cholesterol regulates, 1101

LIPID DOMAINS

cholesterol believed to play crucial role in lateral organization of lipid membranes in form of specialized, or rafts, 1101

LIPID MEDIATORS

polyunsaturated fatty acids of n-3 series interfere with biosynthesis of, 1171

LIPID METABOLISM

and lymphatic transport of diacylglycerol, 827

effect of dietary protein and conjugated linoleic acid interaction on, in rats, 601

role of stearoyl-coenzyme A desaturase in, 1061

LIPID PEROXIDATION

and distribution of tocopherols and tocotrienols to rat ocular tissues after topical ophthalmic administration, 469

LIPID QUALITY

analysis of factor, revealed that triolein responsible for significantly lower lipase activity, 449

LIPID RAFT

serves as platform that could locally initiate signal transduction, 1115

LIPID(S)

extent to which Raman signal from particular, can be approximated as sum of signals arising from distinct units within the molecule, 407

from methanotropic bacteria reduce plasma cholesterol and classes of phospholipids in mink, 833

lipoprotein, and triacylglycerols were more oxidized in pigs fed on most oxidized oil compared with those fed on nonoxidized oil, 639

LIPID-BINDING PROTEINS

dietary fat may influence abundance of other, in the enterocyte, 343

LIPOPOLYSACCHARIDES

β -hydroxy acids as free compounds and also covalently bound to, of *Marinobacter hydrocarbonoclasticus*, 75

incorporation in, of β -hydroxy acids, 491

LIPOPROTEIN(a)

successful utilization of lyophilized, as biological reagent, 589

LIPOPROTEINS

fenitrothion-induced structural and functional perturbations in the yolk, of the shrimp, 389

new approach to analysis of oxidized triacylglycerols in, 507

LIPOSOME(S)

cardiolipin utilized in drug delivery systems in form of, to enhance therapeutic efficacy of antitumor drugs, 595

drug delivery to tumor cells through, formed by cardiolipin, 285

fenitrothion increased lipid phase polarity of forms of both lipoate and, 389

LIPOXYGENASE INHIBITOR

nigerloxin acts as, and aldose reductase inhibitor and possesses free radical-scavenging property, 173

LIPOXYGENASE(S)

biosynthesis and isomerization of 11-hydroperoxylinoleates by manganese- and iron-dependent, 319

the, -divinyl ether synthase pathway is of functional importance in the defense of plants against attacking pathogens, 565

LIQUID-ORDERED PHASE

unique for cholesterol and other higher sterols, 1101

LIVER LIPIDS

conjugated linoleic acid feeding had no significant effects on, 611

supplementation and delivery of n-3 fatty acids through spray-dried milk reduce serum lipids and, in rats, 627

LONG-CHAIN n-3 POLYUNSATURATED FATTY ACIDS

encouraging fish consumption to reach two fish portions per week among French men and women would raise the intake of, 527

estimated maternal intake of, during lactation is strong determinant of infant red blood cell-docosahexaenoic acid level, 195

LONG-CHAIN POLYUNSATURATED FATTY ACIDS

biosynthesis in transgenic plants, 1067

dietary intake of essential fatty acids and, in pregnancy, 421

effect of cigarette smoke on synthesis of n-3, *in vitro* by using MCF-10A, a line of healthy epithelial cells from human mammary gland, 633

in childhood developmental and psychiatric disorders, 1215

levels of, significantly lower in adults with attention deficit/hyperactivity disorder symptoms, 117

LOW DENSITY LIPOPROTEIN-RECEPTOR

selective increase in pinolenic acid in Korean pine nut oil by crystallization and its effect on, activity, 383

LOW DENSITY LIPOPROTEIN(S)

baseline diene conjugation method used for determination of oxidation levels, 507

fast measurement of oxidized, in blood samples, 639

oxidative modification of, involved in pathogenesis of atherosclerosis and coronary heart disease, 1239

quantitative determination of, oxidation by Fourier transform infrared and chemometric analysis, 687

LOW TEMPERATURE

change in fatty acyl residues observed during fruiting-body formation in *Lentinula edodes* differs from that which occurs in response to, stress, 67

LYMPH LIPIDS

free cholesterol fraction of, 827

B-LYMPHOCYTE

investigation of effects of eicosapentaenoic acid and docosahexaenoic acid on function and gene expression of, cell line, 857

LYMPHOCYTES

step-by-step analysis of T cell signaling cascades stimulated via T cell receptor (TCR)/CD3 complex that mediates antigen-specific stimuli to T, *in vivo*, 1171

LYOPHILIZATION

does not significantly affect the structural and functional properties of lipoprotein(a), 589

M**MACROPHAGES**

fatty acids induce increased granulocyte macrophage-colony stimulating factor secretion through protein kinase C-activation in THP-1, 243

MALONALDEHYDE

glyoxal, and methylglyoxal are products of lipid peroxidation that are implicated in various diseases, 481

MANGANESE

biosynthesis and isomerization of 11-hydroperoxylinoleates by, and iron-dependent lipoxygenases, 319

MARINE FOOD CHAIN

many pelagic fishes accumulate n-3 polyunsaturated fatty acids in, 997

MARINE NATURAL PRODUCTS

four, consisting of novel straight-chain polyacetylenic alcohols isolated from marine ascidian, 681

MARINE SPONGES

are 2-methoxylated fatty acids in, a defense mechanism against mycobacteria? 675

Marinobacter hydrocarbonoclasticus

effects of hydrocarbons on *Marinobacter hydrocarbonoclasticus* lipids, 491

incorporation of 1-chlorooctadecane in fatty acids and β -hydroxy acids of, 75

MASS SPECTROMETRY

determination of relative amounts of positional isomers in complex mixtures of triglycerides using reversed-phase high-performance liquid chromatography-tandem, 273

development and application of analytical methods to study bile acids and steroids based on chromatography and, 703

enrichments of carbon-13 and deuterium in red blood cells analyzed using differential isotope ratio, 87

method based on high-performance liquid chromatography and electrospray ionization-, optimized and applied to analysis of molecular structures of oxidized triacylglycerols in low density lipoproteins, 507

method based on reversed-phase high-performance liquid chromatography and electrospray ionization-, used for analysis of oxidized triacylglycerol molecules, 639

ozonized products analyzed by chemiluminescence detection high-performance liquid chromatography with on-line electrospray, and characterized on the basis of nuclear magnetic resonance and fast-atom bombardment, 259

MATERNAL TYPE I DIABETES

healthy neonates born to mothers who have maternal type 1 diabetes have highly compromised levels of arachidonic acid and docosahexaenoic acid, 335

MCF-10A

effect of cigarette smoke on synthesis of n-3 long-chain polyunsaturated fatty acids *in vitro* by using, a line of healthy epithelial cells from human mammary gland, 633

MECHANISM-BASED INHIBITORS

experiments with, 737

MEDITERRANEAN DIET

health benefits of olive oil in classic, 1223
hypochlorous acid and, 1239
olive oil major component of, 1233

MEDIUM-CHAIN TRIACYGLYCEROLS

possibly as result of, coconut oil significantly decreased growth, 499
Megangulus zyoneensis

identification of minor fatty acids and various non-methylene-interrupted diene isomers in mantle, muscle, and viscera of marine bivalve, 265

MELANOCYTES

activity of, is major determinant of color of hair and skin, 1093

MEMBRANE

determination of erythrocyte, fatty acid composition, 955

MEMBRANE FLUIDITY

alterations of fatty acid metabolism and, in peroxisome-defective mutant ZP102 cells, 43

MERCURY

environmental contaminants such as polychlorinated biphenyls, lead, and, are suspected to be related to adverse pregnancy outcomes and reduced growth, 617

METABOLISM

of conjugated linoleic acids, 1143

METHANOTROPHIC BACTERIA

lipids from, reduce plasma cholesterol and classes of phospholipids in mink, 833

METHYL ESTER FATTY ACIDS

studies with rats indicate that intestinal hydrolysis and absorption rates of, from menhaden and rapeseed oils were severalfold slower than corresponding triglycerides, 365

N-METHYL-D-ASPARTATE

pregnenolone sulfate potentiates, receptor response to glutamate, 811

2-C-METHYL-D-ERYTHRITOL 4-PHOSPHATE

fosmidomycin is mycotoxin and inhibitor of, pathway, 723

METHYLGlyOXAL

glyoxal, malonaldehyde, and, are products of lipid peroxidation implicated in various diseases, 481

MEVALONATE

cytosolic and mitochondrial isoprenoids derive from, 723
in the isoprenoid biosynthetic pathway, 293

MEVINOLIN

used as probe to evaluate role of mevalonate in various physiological and biochemical processes in plants, 723

C57BL/6J MICE

ω -3 polyunsaturated fatty acids of marine origin limit diet-induced obesity in, by reducing cellularity of adipose tissue, 1177

MICROSOMAL TRIGLYCERIDE TRANSFER PROTEIN

tangeretin-induced suppression of triacylglycerol synthesis and mass associated with decreased activities of diacylglycerol acyltransferase and, 143

MICROSOMES

of developing castor seeds, 865

MILK FAT(S)

conjugated linoleic acid form and, depression, 365

conjugated linoleic acid isomers in, 355

effect of modified, and calcium in purified diets on cholesterol metabolism in hamsters, 441

modified, and plasma lipids, 985

modifying, composition of dairy cows to enhance fatty acids beneficial to human health, 1197

variations of *trans*-octadecenoic acid in, induced by feeding different starch-based diets to cows, 19

MILK LIPIDS

good source of conjugated linoleic acids with putative antiatherogenic properties, 627

MINK

lipids from methanotrophic bacteria reduce plasma cholesterol and classes of phospholipids in, 833

MITOCHONDRIA

fatty acid oxidation-related activities in peroxisomes and, 849

MOLLUSKS

fatty acid composition of serine, ethanolamine, and choline plasmalogens in some marine bivalve, 59

MONOCLONAL AUTOANTIBODY

immunological properties of, T-15, 589

MONOCYTE CHEMOTAXIS

impact of *in vivo* glycation of low density lipoprotein on platelet aggregation and, in diabetic *Psammomys obesus*, 81

MONOSACCHARIDE

glucose is most abundant and least expensive, 795

MONOTERPENES

as product of isoprenoid biosynthetic pathway, 293

MONOUNSATURATED FAT

from extra-virgin olive oil associated with lower systolic and diastolic blood pressure, 1233

in foods in the United States prior to mandatory *trans* fat labeling, 11

MONOUNSATURATED FATTY ACID

high content of, in olive oil, 1223

MOSESIN

synthesis of, 795

MUSCLE

phospholipid fatty acid composition of skeletal, tissue samples, 955

MUSCLE CELLS

fatty acid metabolism in, of Atlantic salmon, 649

MUTATION

in sphingolipid synthesis suppresses defects in yeast ergosterol metabolism, 747

MYCOBACTERIA

are 2-methoxylated fatty acids in marine sponges a defense mechanism against, ?, 675

MYELOPEROXIDASE

inhibitory effect of polyphenols on, activity, 1239

Mytilus edulis

fatty acid composition of serine, ethanolamine, and choline plasmalogens in, 59

N**NEONATES**

healthy, born to mothers with type 1 diabetes have highly compromised levels of arachidonic acid and docosahexaenoic acid, 335

NEPETOIDEAE

genera under subfamily, including *Origanum onites* L. and *Origanum vulgare* L., reported to contain unsaturated fatty acids as predominant constituents, 487

NEUROPROTECTION

and role of docosahexaenoic acid in the retina, 1121

NEUTRAL LIPID

use of triolein as, source in diet of larval sea bass, 449

NEWBORN

gestational age and birth weight are important predictors of survival and health status of the, 617

NIGERLOXIN

spectroscopic study of interaction of, with serum albumin, 173

NITRIC OXIDE

effect of conjugated linoleic acid alone and in combination with other polyunsaturated fatty acids on the fatty acid composition and production of prostaglandin E₂ and, cultures isolated from osteoarthritis patients, 161

NOMENCLATURE

of polyunsaturated fatty acids, 693

NON-INSULIN-DEPENDENT DIABETES MELLITUS

animal species *Psammomys obesus*, with genetically predetermined diabetes, acquires, when exposed to energy-rich diets, 81

NON-METHYLENE-INTERRUPTED FATTY ACID(S)

methyl esters of unsaturated fatty acids fractionated according to their degree of unsaturation by using argentation thin-layer chromatography to clarify occurrence of, in marine bivalve *Megangulus zyoneensis*, 265

noticeable amounts of, found in phosphatidylethanolamine plasmalogens, 59

- were characteristically localized only in phosphatidylethanolamine, 997
- NORMAL-PHASE HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY**
regiospecific determination of short-chain triacylglycerols in butterfat by, with on-line electrospray-tandem mass spectrometry, 915
- ¹H NUCLEAR MAGNETIC RESONANCE**
and analysis of fatty podophyllotoxins as cancer inhibitors, 167
iron-catalyzed phospholipid peroxidation examined using, 881
spectroscopic techniques, particularly, and ¹³C nuclear magnetic resonance, were suitable tools to characterize new compounds, 659
- ¹³C NUCLEAR MAGNETIC RESONANCE**
and analysis of fatty podophyllotoxins as cancer inhibitors, 167
spectroscopic techniques, particularly ¹H nuclear magnetic resonance and, were suitable tools to characterize new compounds, 659
- NUCLEAR MAGNETIC RESONANCE SPECTROSCOPY**
individual sterols subjected to high-field, 753
ozonized products analyzed by chemiluminescence detection high-performance liquid chromatography with on-line electrospray mass spectrometry and characterized on the basis of, and fast-atom bombardment mass spectrometry, 259
- NUDE MICE**
MCF-7 breast cancer cells injected into athymic, 459
- NUTRITION**
milk fat content and fatty acid composition can be significantly altered through, of dairy cows, 1197
- O**
- OBESITY**
diseases such as diabetes mellitus, cardiovascular diseases, and other so-called lifestyle-related diseases are all related to, 37
- OIL**
determination of potential and limitations of Raman spectroscopy for, analysis, 407
- OIL PALM**
developmental study on appearance of tocopherols and tocotrienols in, fruits from different stages of ripeness, 561
- OILSEEDS**
concentration of conjugated linoleic acid isomers in milk fat of cows fed control diet or control diet supplemented with, 355
- OLEIC ACID**
effect of replacing saturated fatty acids with, in dairy products, 441
- OLIVE OIL**
and modulation of cell signaling in disease prevention, 1223
- ω -3**
decreased measures of aggression or violence by increasing intakes of long-chain, fatty acids relative to ω -6 intake, 1207
gestational age and birth weight in relation to, fatty acids among Inuit (Canada), 617
- ω -3-DERIVED MEDIATORS**
novel, and their endogenous aspirin-triggered epimers, 1125
- ORGANOCHLORINE**
detrimental effects of, compounds in many systems, 993
- Origanum onites* L.
fatty acids of the seeds of, and *Origanum vulgare* L., 487
- Origanum vulgare* L.
fatty acids of the seeds of *Origanum onites* L. and, 487
- OSTEOARTHRITIS**
effects of conjugated linoleic acid on, 161
- OXIDATION**
diet and lipoprotein, 639
dioxirane, of 3 β -substituted Δ^5 -steroids, 805
low density lipoprotein baseline diene conjugation method used for determination of, levels, 507
quantitative determination of low density lipoprotein, by Fourier transform infrared and chemometric analysis, 687
reaction paths of, 801
- β -OXIDATION**
docosahexaenoic acid inhibits mitochondrial, of other fatty acids, 849
of linolenic acid in Atlantic salmon hepatocytes treated with different fatty acids, 153
- OXIDATIVE STATUS**
modulation of fatty acids and, in hepatocyte nodules, 963
- OXIDIZED FRYING OIL**
and peroxisome proliferator-activated receptor- α activation in both genders of rats, 233
- OXIDIZED LOW DENSITY LIPOPROTEIN**
low concentration of, suppresses platelet reactivity *in vitro*, 433
- OXIDIZED OILS**
formation of toxic compounds from, 481
- OXIDOSQUALENE CYCLASE**
structure of umbelliferone derivatives investigated as, inhibitors, 1007
- OXONE®**
is an inexpensive, environmentally friendly oxidant with no toxic by-products, 805
- OXOPHOSPHOLIPIDS**
phospholipids and, in atherosclerotic plaques at different stages of plaque development, 97
- OXORUTHENIUMPORPHYRINATE COMPLEX**
oxidation of steroids with, 873
- OXYFUNCTIONALIZATION**
catalytic method for, of unactivated carbons in steroids, 873
- OZONATION**
of cholesterol in the presence of ethanol: identification of a cytotoxic ethoxyhydroperoxide molecule, 259
- P**
- PALM OIL**
separation of vitamin E in, 1031
tocotrienol-rich fraction from, affects gene expression in tumors resulting from MDF-7 cell inoculation in athymic mice, 459
- PALMITIC ACID**
effect of triacylglycerol structure on absorption and metabolism of isotope-labeled, and linoleic acid by humans, 1
- PALM-PRESSED FIBER**
extraction of residual oil from, 1031
- PANCREATIN**
two types of purified hydroxycinnamate esters were hydrolyzed by cholesterol esterase and by, 769
- PARTIAL HYDROGENATION**
with hydrazine carried out for both γ -linolenic acid and α -linolenic acid, 185
- PAVONININ**
six shark-repelling saponins named, -1 to -6 were isolated from related species of fish, 795
- pcy* MOUSE
modulation of renal injury in, by dietary fat containing n-3 fatty acids depends on level and type of fat, 207
- PEARLING FINES**
total phytosterols of grains and, analyzed by gas chromatography using flame-ionization detection after acid and alkaline hydrolysis, 783
- Pellonia repens*
new glucoceramide from, 1037
- PELLIONIARESIDE**
isolation and structure elucidation new glucoceramide named, 1037
- PERMEABILITY**
cholesterol imparts low, barriers to lipid membranes, 1101
- PEROXIDATION**
iron-catalyzed phospholipid, 881
- PEROXISOME BIOGENESIS DISORDERS**
clarify biochemical bases of, 43
- PEROXISOME PROLIFERATOR-ACTIVATED RECEPTOR RESPONSE ELEMENTS**
sea bass isotypes recognize and bind to, of both mammalian and piscine origin, 1085

- PEROXISOME PROLIFERATOR-ACTIVATED RECEPTOR(S)**
determination whether cultivated muscle cells express, which is known to be important for regulation of β -oxidation in mammals, 649
functions of, in skin homeostasis, 1093
influence of tangeretin on activities of microsomal triglyceride transfer protein, diacylglycerol acyltransferase, and, 143
molecular characterization of three, from sea bass, 1085
transcription factors of nuclear receptor family, 1077
- PEROXISOMES**
fatty acid oxidation-related activities in, and mitochondria, 849
- PETROSELINIC ACID**
Geranium sanguineum (Geraniaceae) seed oil is new source of, and vernolic acid, 571
- Pex5 YEAST MUTANT**
alteration of lipid metabolism by, 43
- PHARMACEUTICAL**
glycosides of fatty acids and alcohols of commercial interest for, and food industries, 933
- PHASE DIAGRAM**
generic, for lipid-cholesterol mixtures, 1101
- PHENYLALKANOIC ACIDS**
oddness/evenness of, closely related to length of aliphatic chain of the hydrocarbon fed, 491
- PHOSPHATIDATE PHOSPHOHYDROLASE**
phospholipase D and, activities in rat cerebellum during aging, 553
- PHOSPHATIC ACID**
differential, metabolism during aging could be related to alterations in neural signal transduction mechanisms, 553
- PHOSPHATIDYLCHOLINE**
asymmetric *in vitro* synthesis of diastereomeric phosphatidylglycerols from, and glycerol by bacterial phospholipase D, 1013
effect of temperature on stereoselectivity of phospholipase D toward glycerol in transphosphatidylation of, to phosphatidylglycerol, 1019
- PHOSPHATIDYLCHOLINE HYDROPEROXIDE**
quantification of, in human plasma, 891
- PHOSPHATIDYLETHANOLAMINE**
lipids from methanotropic bacteria rich in, reduce plasma cholesterol and classes of phospholipids: a comparison with soybean oil, 833
- PHOSPHATIDYLYGLYCEROL**
configuration of, 1031
effect of temperature on stereoselectivity of phospholipase D toward glycerol in transphosphatidylation of phosphatidylcholine to, 1019
synthesis of, diastereomers, 1025
- PHOSPHATIDYL SERINE OXIDATION**
cytochrome c catalyzes, 1133
- PHOSPHATIDYL SERINE PLASMALOGEN**
isolated by high-performance liquid chromatography, 59
- PHOSPHOLIPASE D**
and phosphatidate phosphohydrolase activities in rat cerebellum during aging, 553
asymmetric *in vitro* synthesis of diastereomeric phosphatidylglycerols from phosphatidylcholine and glycerol by bacterial phospholipase D, 1013
simple synthesis of diastereomerically pure phosphatidylglycerols by, -catalyzed transphosphatidylation, 1025
temperature effect on stereoselectivity of, 1019
transphosphatidylation reaction catalyzed by, from savoy cabbage, 777
- PHOSPHOLIPID(S)**
and oxophospholipids in atherosclerotic plaques at different stages of plaque development, 97
effects of two purified isomers of conjugated linoleic acid on weights and fatty acid compositions of hepatic triglycerides, cholesterol esters, free fatty acids and, 135
fatty acyl residue composition of, not influenced by vegetative growth, 67
iron-catalyzed, peroxidation, 881
lipids from methanotropic bacteria reduce plasma cholesterol and classes of, in mink, 833
- plant sterols modified to form amphiphiles by synthesizing, derivatives, 777
- PHOSPHONIUM SALT METHODOLOGY**
new approach for synthesis of cardiolipin family of phospholipids using, 595
- PHOTOISOMERIZATION**
production of conjugated linoleic acid isomers from soybean oil by, of soybean oil linoleic acid, 577
- PHOTORECEPTOR CELLS**
bright light can damage, 1121
- PHOTOSTASIS**
physiological consequences of, 1121
- PHYTONUTRIENT CONCENTRATE**
obtained as residue from vacuum distillation of crude palm oil methyl esters, 1031
- PHYTOSTEROL CLASSES**
and pearl barley and rye, 783
- PHYTOSTEROL(S)**
in vitro hydrolysis of, conjugates, 769
mass spectrometry analysis of, isolated from tobacco BY-2 cells, 723
naturally occurring, may significantly affect cholesterol absorption, 777
total, of grains and pearl fines analyzed by gas chromatography using flame-ionization detection after acid and alkaline hydrolysis, 783
- PINOLENIC ACID**
selective increase in, in Korean pine nut oil by crystallization and its effect on low density lipoprotein-receptor activity, 383
- PLAQUE DEVELOPMENT**
phospholipids and oxophospholipids in atherosclerotic plaques at different stages of, 97
- PLASMA CHOLESTEROL**
lipids from methanotropic bacteria reduce, and classes of phospholipids in mink, 833
- PLASMA CLEARANCE**
of isotopes, 993
- PLASMA LIPOPROTEINS**
protection of dietary polyunsaturated fatty acids against ruminal hydrogenation allowed them to accumulate in, 125
- PLASMALOGENS**
fatty acid composition of serine, ethanolamine, and choline, in some marine bivalves, 59
- PLASMA PHOSPHOLIPIDS**
increase in proportion of n-3 highly unsaturated fatty acids measured in umbilical cord, was associated with significantly longer gestational age, 617
- PLATELET AGGREGATION**
impact of *in vivo* glycation of low density lipoprotein on, and monocyte chemotaxis in diabetic *Psammomys obesus*, 81
oxidized low density lipoprotein inhibits, 433
- PNEUMOCYSTEROL**
blocked at 14 α -demethylation of sterol nucleic, 753
- Pneumocystis carinii**
umbelliflorone aminoalkyl derivatives as inhibitors of oxidosqualene cyclases from *Saccharomyces cerevisiae*, *Trypanosoma cruzi*, and, 1007
- Pneumocystis jirovecii**
sterol compositions observed in different samples spanned unusually broad range, 753
- PODOPHYLLOTOXIN**
novel fatty estolides of, 659
synthesis and anticancer activities of fatty acid analogs of, 167
- POLYACETYLENES**
from a marine ascidian, 681
- POLYCHLORINATED BIPHENYLS**
environmental contaminants such as lead, mercury, and, are suspected to be related to adverse pregnancy outcomes and reduced growth, 617
- POLYCYSTIC KIDNEY DISEASE**
treatment of, patients involves alleviation of associated secondary disorders, 207

POLYMORPHISM

no significant difference between coronary heart disease and control groups in frequency of alleles and genotypes in the 8302A/C, 239

POLYPHENOLS

beneficial effect of olive oil on blood pressure may be associated with high content of antioxidant, 1233
inhibitory effect of, on myeloperoxidase activity, 1239

POLYUNSATURATED FAT

in foods in the United States prior to mandatory *trans* fat labeling, 11

POLYUNSATURATED FATTY ACID DIET

isocaloric, enhances lipid uptake and weight gain in aging rats, 343

POLYUNSATURATED FATTY ACID(S)

and T cell signaling, 1171
anti-obesity effect of ω -3, 1177
conjugated linoleic acids as precursors of distinct family of, 1143
dose effect of α -linolenic acid on, conversion, bioavailability and storage in the hamster, 325
nomenclature of, 693
suppress induction of lipogenic genes, 1077

n-3 POLYUNSATURATED FATTY ACIDS

effects of dietary, on T cell membrane composition and function, 1163

n-6 POLYUNSATURATED FATTY ACID

effects in fattening steers, of supplementation on plasma distribution and chemical composition of lipoproteins, 125

POSITIONAL DISTRIBUTION

of decanoic acid, 373

POSITIONAL ISOMERS

determination of relative amounts of, in complex mixtures of triglycerides using reversed-phase high-performance liquid chromatography-tandem mass spectrometry, 273

POSTPRANDIAL

fasting and, lipid response to the consumption of modified milk fats in guinea pigs, 985

PREGNANCY

dietary intake of essential fatty acids and long-chain polyunsaturated fatty acids in, 421

effect of fish oil supplementation in late, and early lactation on the n-3 fatty acid content in human breast milk, 1191

PREGNENOLONE SULFATE

potentiates N-methyl-D-aspartate receptor response to glutamate, 811

PRIMARY CULTURE

salmon muscle cells differentiated in, are well suited as model system for studies on lipid metabolism in fish muscle, 649

PROLIFERATION

effect of eicosapentaenoic acid and docosahexaenoic acid on the, of Raji cells, 857

PROSTAGLANDIN E₂

effect of conjugated linoleic acid alone and in combination with other polyunsaturated fatty acids on the fatty acid composition and production of, and nitric oxide cultures isolated from osteoarthritis patients, 161

PROSTATE CANCER

α -linolenic acid and the risk of, 929

PROTEIN ENGINEERING

and applications of *Candida rugosa* lipase isoforms, 513

PROTEIN EXPRESSION

and function during castor seed development, 865

PROTEIN FUNCTION

effect of cholesterol on, 1101

PROTEIN KINASE C

fatty acids induce increased granulocyte macrophage-colony stimulating factor secretion through activation of, in THP-1 macrophages, 243

PROTEIN-LIGAND INTERACTIONS

hydrophobic interactions may dominate, 173

PSORIASIS

implication of peroxisome proliferator-activated receptors in, 1093

PULSE LABELING

experiment in, with [¹⁴C]lignoceric acid, 43

PURIFICATION

and characterization of an extracellular lipase from *Geotrichum marinum*, 251

Q**QUINCE RUST**

detailed sterol composition of, 763

R**RABBITS**

development of cholesterol-induced atherosclerosis in, 611

RAFTS

role of cholesterol in formation of special membrane domains and, 1101

RAINBOW TROUT

induction of peroxisomal activities responsible for lower contents of eicosapentaenoic acid and docosahexaenoic acid in body lipids of fenofibrate-treated, 849

RAJI CELLS

effects of eicosapentaenoic acid and docosahexaenoic acid on proliferation, cytokine production, and gene expression in, 857

RAMAN SPECTROSCOPY

critical evaluation of, for analysis of fatty acid methyl esters, 407 of clarified butter, 897

RATS

incorporation of n-3 fatty acids into plasma and liver lipids of, and importance of background dietary fat, 545

oxidized frying oil and peroxisome proliferator-activated receptor- α activation in two genders of, 233

REACTIVE OXYGEN SPECIES

antioxidants effectively remove, by direct scavenging process or through modulation of other defense mechanisms, 1239

RECOMBINANT DEOXYRIBONUCLEIC ACID

manipulating culture conditions and using, technology are means of obtaining different *Candida rugosa* lipase isoforms, 513

REDOX CATALYSIS OF CYTOCHROME C RELEASE

may be essential for phosphatidylcholine oxidation in apoptosis, 1133

REGIOISOMERS

differentiation of, of short-chain triacylglycerols, 915

REGIOSELECTIVITY

reactivity and, of *O*-insertion reaction, 873

REGRESSION OF ATHEROSCLEROSIS

conjugated linoleic acid isomer effects on, 611

REGULATION

tobacco BY-2 cells are advantageous for analyzing the, of biosynthetic intermediates and final products, 723

RETINA

role of docosahexaenoic acid in the, 1121

REVERSE-PHASE

determination of relative amounts of positional isomers in complex mixtures of triglycerides using, high-performance liquid chromatography-tandem mass spectrometry, 273

RHAMNOLIPIDS

biosurfactants containing rhamnose and β -hydroxydecanoic acid called, 933

RHEUMATOID ARTHRITIS

anti-inflammatory effects of olive oil consumption have been reported for, 1223

Ricinus communis

characterization of diacylglycerol acyltransferase from castor bean, 311

regulation of diacylglycerol acyltransferase in developing seeds of, castor, 865

RING-OPENING REACTION

boron trifluoride attacks oxygen atom of epoxy system and causes, 583

ROTIFER

larval fatty acid profiles generally reflect those of, diet, 215

Ruditapes philippinarum

fatty acid composition of serine, ethanolamine, and choline plasmalogens in, 59

RUMENIC ACID

constitutes 90% of total conjugated linoleic acid found in dairy and beef lipids, 577

RUST FUNGI

detailed sterol compositions of two pathogenic, 763

RYE

pearling barley and, to produce phytosterol-rich fractions, 783

S*Saccharomyces cerevisiae*

expression of full-length complementary deoxyribonucleic acid for diacylglycerol acyltransferase from *Ricinus communis* in yeast, strain INVSc1, 311

SAPONIFICATION

hydrolysis of phytosterol conjugates by, 769

SAPONINS

isolation and synthesis of shark-repelling, 795

SATURATED FAT

in foods in the United States prior to mandatory *trans* fat labeling, 11

SATURATED FATTY ACID DIET

polyunsaturated fatty acid diet associated with greater weight gain than, 343

SCHROEPFER JR., GEORGE J.

Memorial Sterol Symposium, 701

SEA BASS

molecular characterization of three peroxisome proliferator-activated receptors from, 1085

SEBOCYTES

arise from cells within superficial hair follicle, 1093

SEED DEVELOPMENT

triacylglycerol composition and content during, 865

SEED OIL(S)

dominant sources of linoleic acid in the United States of America, 1207

fatty acid compositions of seed oils from *Origanum onites* L. and *Ori-ganum vulgare* L., 487

Geranium sanguineum (Geraniaceae), is new source of petroselinic and vernolic acid, 571

SEPSIS

infusion of long-chain n-3 fatty acids into patients with, can modulate inflammatory mediator production and related inflammatory processes, 1147

SEROLOGY

of negative and positive human immunodeficiency virus patients in Cameroon, 753

SEROTONIN

frontal cortex concentrations of, in piglets, 1207

SERUM ALBUMIN

spectroscopic study of interaction of nigerloxin with, 173

SERUM LIPIDS

mechanism of conjugated linoleic acid action does not appear to involve effects on, 611

supplementation and delivery of n-3 fatty acids through spray-dried milk reduces, and liver lipids in rats, 627

SESQUITERPENES

as product of isoprenoid biosynthetic pathway, 293

SHARK-REPELLING

isolation and synthesis of, saponins, 795

SHORT-CHAIN AND LONG-CHAIN CARDIOLIPIN

method extended to synthesize broad range of, and their ether analogs, 595

SHORT-CHAIN TRIACYLGLYCEROLS

regiospecific determination of, in butterfat by normal-phase high-performance liquid chromatography with on-line electrospray-tandem mass spectrometry, 915

SHORT-PATH DISTILLATION

results in tocopherol concentrate, 789

SIGNAL TRANSDUCTION PATHWAYS

effects of polyunsaturated fatty acids on T cell, 1171

lipids in membrane microdomains actively participate in, 1163

SILVER-ION HIGH-PERFORMANCE LIQUID CHROMATOGRAPHY

concentration of conjugated linoleic acid isomers determined by, 355

SINGLE ISOTOPE

validation of, labeled cholesterol tracer approach for measuring human cholesterol absorption, 87

SITOSTEROL

new phosphatidyl derivatives synthesized by transfer reaction of phosphatidyl residue from phosphatidylcholine to β , by phospholipase D, 777

SODIUM TAUROCHENODEOXYCHOLATE

each mucin equilibrated with three different series of concentrations of the bile salts sodium taurocholate, sodium taurodeoxycholate, and, 51

SODIUM TAUROCHOLATE

each mucin equilibrated with three different series of concentrations of the bile salts sodium taurodeoxycholate, sodium taurochenodeoxycholate, and, 51

SODIUM TAURODEOXYCHOLATE

each mucin equilibrated with three different series of concentrations of the bile salts sodium taurocholate, sodium taurochenodeoxycholate, and, 51

SOPHOROLIPIDS

microbial extracellular surface-active glycolipids, 933

SOY PROTEIN

body fat-reducing activity of conjugated linoleic acid more effective when protein source was, rather than casein, 25

SOYBEAN OIL

lipids from methanotrophic bacteria rich in phosphatidylethanolamine reduce plasma cholesterol and classes of phospholipids: a comparison with, 833

photochemical production of conjugated linoleic acid from, 577

SOYBEAN OIL DEODORIZER DISTILLATE

tocopherols purified industrially from, by process comprising distillation and ethanol fractionation, 789

SPECTROSCOPIC STUDY

of interaction of nigerloxin with serum albumin, 173

SPECTROSCOPY

interaction of nigerloxin with bovine serum albumin investigated using fluorescence, and circular dichroic measurements, 173

SPHINGOLIPID(S)

alteration of lipid metabolism by *Pex5* yeast mutation-enhanced metabolism of saturated fatty acids and, 43
mutation in, synthesis suppresses defects in yeast ergosterol metabolism, 747

SQUALENE-HOPENE CYCLASE

effect of umbelliferone derivatives on the activities of, 1007

STABLE-ISOTOPE

four male subjects volunteered for, study, 1

STARCH CONCENTRATE

dairy cows received diets containing a slowly degradable or rapidly degradable, in a total mixed diet, 19

STEERS

dietary linoleic acid induced hypercholesterolemia and accumulation of very light high density lipoprotein in, 125

STEREOSELECTIVITY

high, of epoxidation, 873
of bacterial phospholipase D, 1013
temperature effect on, of phospholipase D, 1019

STEROID(S)

bearing ketone functionality at carbon-7 found commonly in nature, 801
dioxirane oxidation of 3 β -substituted Δ^5 -, 805
fifty years with bile acids and, in health and disease, 703
of glucocorticoid class capable of causing apoptotic death of many varieties of lymphoid leukemic cells, 821

oxidation of, with oxorutheniumporphyrinate complex, 873

STEROIDAL AGLYCONE

synthesis of, of pavoninin, 795

STEROIDOMICS

detailed characterization and quantification of metabolic profiles of steroids and bile acid under different conditions may be termed, and cholanoidomics, 703

- STEROL COMPOSITIONS**
detailed, of two pathogenic rust fungi, 763
- STEROL METHYLTRANSFERASE**
antifungal activity, sterol analysis and inhibition of, by sulfur-based substrate analogs, 737
- Δ^{24} -STEROL METHYLTRANSFERASE**
castor 25 albumin gene expression and, 737
- STEROL REGULATORY ELEMENT BINDING PROTEIN**
key mediator of gene regulation by fatty acids, 1077
- STEROL SYMPOSIUM**
2004 G.J. Schroepfer Jr. Memorial, 701
- STEROL SYNTHESIS**
and regulation in yeast, 747
- STEROL(S)**
and isolation and synthesis of shark-repelling saponins, 795
esterification of, from waste material after purification of tocopherols using various lipases, 789
soy lecithin granules contain significant levels of, glycosides, 769
synthesis of, 801
- STERYL ESTER**
short-path distillation results in tocopherol concentrate that does not contain, 789
- Streptomyces**
strains isolated from soil, 1013
- STRIPED TRUMPETER**
dietary n-3 long chain-polyunsaturated fatty acids and, body profiles, 215
- STRUCTURE**
and function of animal fatty acid synthase, 1045
- STRUCTURED LIPIDS**
of structured triacylglycerol with medium-chain fatty acids predominantly at the sn-1,3 positions important in nutritional support of patients suffering from malabsorption, 373
- SUBMAXILLARY MUCIN**
bovine, rich in short carbohydrate side chains and had considerably more binding of bile salts, 51
- SULFUR-BASED SUBSTRATE ANALOGS**
antifungal activity, sterol analysis, and inhibition of sterol methyl transferase by, 737
- SUNFLOWER SEED OIL**
effect on steers of diet supplemented with, 125
- SURGERY**
benefit from the inclusion of long-chain-3 fatty acids in parenteral nutrition regimens used in abdominal, patients, 1147
- SYNERGISTIC RELATIONSHIP**
between two lipid species, sterols and sphingolipids, 747
- SYNTHESIS**
efficient and novel method for, of cardiolipin and analogs, 285
isolation and, of shark-repelling saponins, 795
isolation, gas chromatographic analysis, and, of all the 6,8- to 13,15-*cis/trans* conjugated linoleic acid isomers, 185
of sterols, 801
- T**
- T CELL MEMBRANE**
effects of dietary n-3 polyunsaturated fatty acids on, composition and function, 1163
- T-15**
immunological properties of monoclonal antibody, 589
- TANDEM MASS SPECTROMETRY**
determination of relative amounts of positional isomers in complex mixtures of triglycerides using reversed-phase high-performance liquid chromatography-, 273
method used to analyze triacylglycerol regiosomers, 373
regiospecific determination of short-chain triacylglycerols in butterfat by normal-phase high-performance liquid chromatography with on-line electrospray-, 915
- TANGERETIN**
regulation of apolipoprotein B metabolism by tangeretin, 143
- TEMPERATURE EFFECT**
on stereoselectivity of phospholipase D, 1019
- TERPENOID**
from medicinal plants, 933
- THROMBOXANE A₂**
inhibition of, formation, 433
- TOBACCO BY-2 CELLS**
isoprenoid biosynthesis in, 723
- TOCOMONOENOL**
quantification of, in palm oil, 1031
- α -TOCOPHEROL**
oxidation rate of conjugated linoleic acid and conjugated linolenic acid is slowed by triacylglycerol esterification and, 475
- TOCOPHEROL(S)**
developmental study on appearance of, and tocotrienols in developing palm mesocarp (*Elaeis guineensis*), 561
distribution of, and tocotrienols to rat ocular tissues after topical ophthalmic administration, 469
short-path distillation results in, concentrate, 789
tocotrienol more potent antioxidant and anticancer agent than, 1031
- TOCOTRIENOL(S)**
developmental study on appearance of tocopherols and, in developing palm mesocarp (*Elaeis guineensis*), 561
distribution of tocopherols and, to rat ocular tissues after topical ophthalmic administration, 469
palm oil is richest source of, among all vegetable oils, 1031
recently shown that, are components of vitamin E responsible for inhibiting growth of human breast cancer cells *in vitro*, 459
- TOPOISOMERASE II**
first study targeting different molecular components, such as tubulin and, by fatty acid derivatives of podophyllotoxin, 659
- TRANSCRIPTION**
two, factors have emerged as key mediators of gene regulation by fatty acids, 1077
- TRANSGENIC PLANTS**
long-chain polyunsaturated fatty acid biosynthesis in, 1067
- TRANSIENT CONFINEMENT ZONES**
detection of, and their significance, 1115
- TRANSPHOSPHATIDYLATION**
effect of temperature on stereoselectivity of phospholipase D toward glycerol in, of phosphatidylcholine to phosphatidylglycerol, 1019
enzymatic synthesis of phosphatidylglycerol from phosphatidylcholine by, reaction, 777
phospholipase D-catalyzed, reaction, 1013
simple synthesis of diastereomerically pure phosphatidylglycerols by phospholipase D-catalyzed, 1025
- TREHALOSE LIPIDS**
occur mainly in bacteria, fungi, algae, and insects, 933
- TRIACYLGLYCEROL(S)**
changes in, in plasma of guinea pigs, 985
composition and content during castor seed development, 865
delayed lymphatic transport of diacylglycerol as compared with, may be important determinant in preventing accumulation of body fat, 827
determination of relative amounts of positional isomers in complex mixtures of, using reversed-phase high-performance liquid chromatography-tandem mass spectrometry, 273
effect of, structure on absorption and metabolism of isotope-labeled palmitic and linoleic acids by humans, 1
effects of two purified isomers of conjugated linoleic acid on weights and fatty acid compositions of hepatic phospholipids, cholesterol esters, free fatty acids, and, 135
major issue in plant lipid biochemistry and biotechnology is understanding of how plants assemble, 311
new approach to analysis of oxidized, in lipoproteins, 507
tangeretin-induced suppression of, synthesis and mass associated with decreased activities of diacylglycerol acyltransferase and microsomal triglyceride transfer protein, 143
- TRICLOSAN**
known antibiotics that target type II fatty acid synthase system include isoniazid, thiolactomycin, and, 1055

TRIGLYCERIDES (SEE TRIACYLGLYCEROLS)***Trypanosoma cruzi***

umbelliferone aminoalkyl derivatives as inhibitors of oxidosqualene cyclases from *Saccharomyces cerevisiae*, and *Pneumocystis carinii*, 1007

TUBULIN

first study targeting different molecular components, such as, and topoisomerase II, by fatty acid derivatives of podophyllotoxin, 659

TUMORS

tocotrienol-rich fraction from palm oil affects gene expression in, resulting from MDF-7 cell inoculation in athymic mice, 459

TYPE 2 DIABETES

insulin resistance and, are associated with elevated circulating levels of nonesterified fatty acids and lipoprotein remnants, 243

U**UMBELLIFERAE**

petroselinic acid is major fatty acid in seeds of plant family, 571

UMBILICAL CORD BLOOD

gestational age and birth weight in, 617

 α,β -UNSATURATED ENONE ESTER

structures of, identified by combination of nuclear magnetic resonance spectroscopic and mass spectrometric analyses, 583

UNSATURATION

measurement of molar, 407

quantification of fatty acid, 881

UPTAKE

age-related decline in intestinal lipid, associated with reduced abundance of fatty acid-binding protein, 603

isocaloric polyunsaturated fatty acid diet enhances lipid, and weight gain in aging rats, 343

URIC ACID

plasma level of glucose, insulin, and, measured by radioimmunoassay, 843

V**VEGETABLE OILS**

dicarbonyl compounds in oxidized fish and, 481

VERNOLIC ACID

Geranium sanguineum (Geraniaceae) seed oil is new source of petroselinic acid and, 571

VERY LIGHT HIGH DENSITY LIPOPROTEIN

dietary linoleic acid induced hypercholesterolemia and accumulation of, in steers, 125

VERY LOW DENSITY LIPOPROTEIN

investigation of oxidized triacylglycerol molecules found in chylomicrons and, 639

VIBRATIONAL

spectroscopy of wide range of disparate systems, 407

VIOLENCE

dietary interventions merit exploration as relatively cost-effective measures for reducing pandemic of, in Western societies, 1207

VISCERAL FAT

effect of diacylglycerol on body weight and, weight of rats, 37

VITAMIN E

separation of, in palm oil, 1031

X**XANTHINE OXIDASE INHIBITOR**

allopurinol has been sole, in clinical use during past three decades, 667

YEAST ERGOSTEROL METABOLISM

mutation in sphingolipid synthesis suppresses defects in, 747

Z**ZUCKER RAT**

effect of specific conjugated linoleic acid isomers on growth characteristics in obese, 537



